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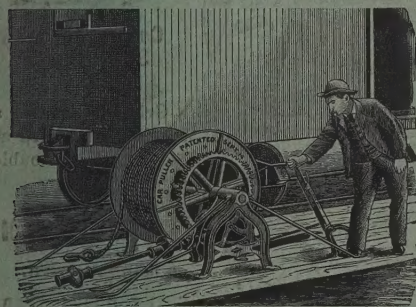
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No. 6.

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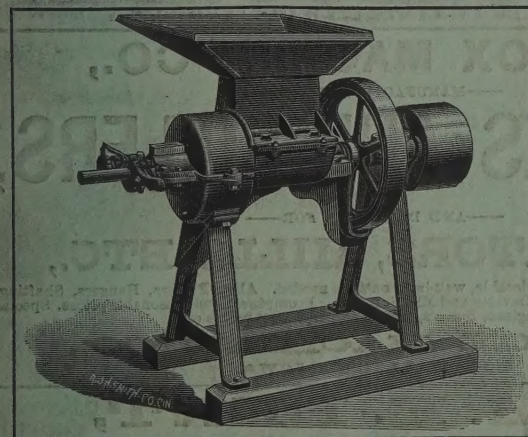


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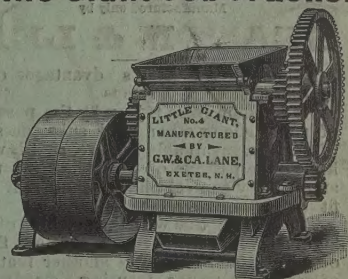
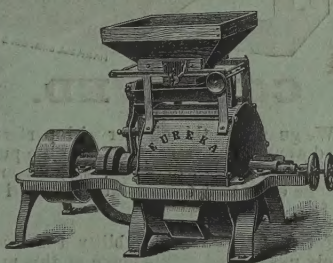
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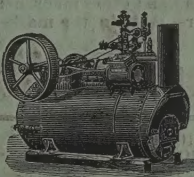
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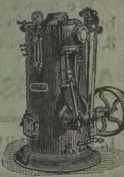
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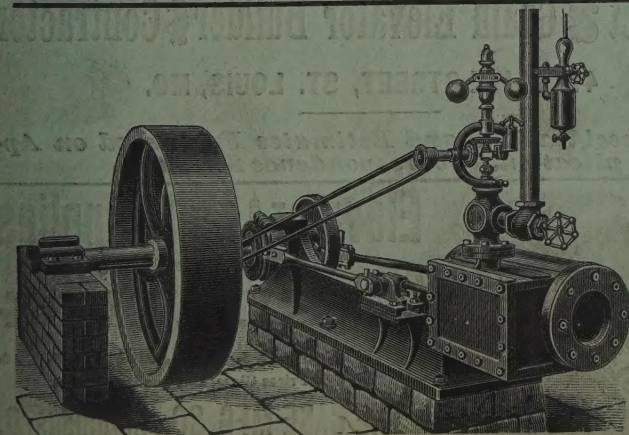
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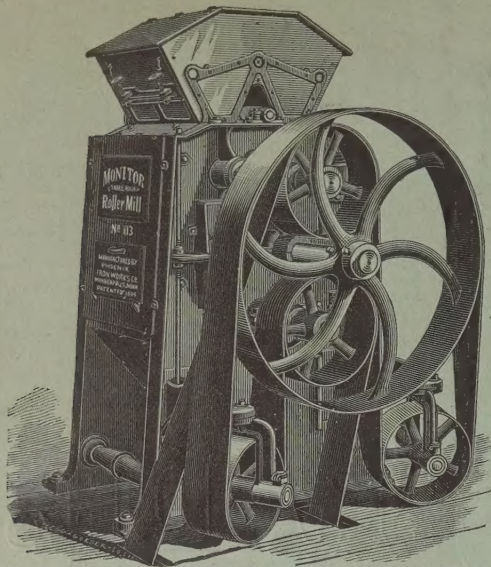
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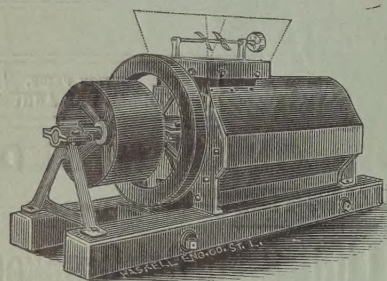
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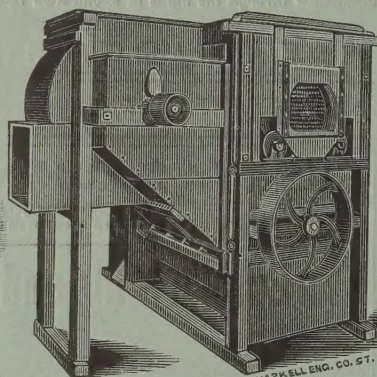
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For simplicity and durability it is absolutely unexcelled. We make of this machine also two sizes to correspond with our sheller, but for special purposes build machines of any capacity up to ten thousand bushels per hour.

A FACT WE WISH TO IMPRESS.—That in the use of this cleaner you dispense with an extra Separator, Boot, Belting, Cups, Lumber and Room necessary in locating and operating them, thus saving largely in the cost of your elevator, both in construction of building and other machinery over other cleaners now in the market. **DON'T FORGET THIS.**

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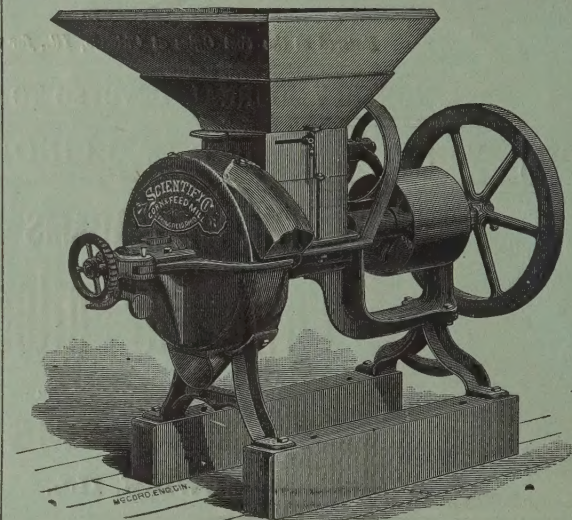
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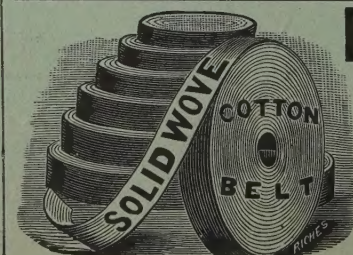
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WILKINSON, GADDIS & CO.'S ELEVATOR AND STOREHOUSE, NEWARK, N. J.

Most of the establishments illustrated in these pages have been those that might be called receiving or transfer houses. The one shown on this page might be called a distributing house, as it is the last link in the chain between the producer and the consumer. The elevator and warehouse in question is located at Newark, N. J., and is one of the best representatives of its class in the East. It is owned by Messrs. Wilkinson, Gaddis & Co., one of the largest and most substantial commercial concerns in that part of the Atlantic states, handling vast quantities of grain, flour, feed, hay, etc.

To carry on a business of the magnitude attained by that of Messrs. Wilkinson, Gaddis & Co. of course requires not only large capital but ample facilities and business connections as well. Mr. E. A. Wilkinson of the firm is also President of the Orrville Milling Co., at Orrville, Ohio, who own one of the best-known flouring mills in the state, it having a daily capacity of about 500 barrels. They have a representative in Chicago and a membership on the Chicago Board of Trade; so that they unite the business of shippers and receivers. In addition to the grain handled at their elevator in Newark, they ship grain directly from the West by the carload to different points in New Jersey, and this branch of their trade extends to Trenton, New Brunswick, Elizabeth, Jersey City, Paterson, and many other smaller towns.

Their elevator, of which an excellent representation is given on this page, is located in Newark, at the corner of Tichenor and Penn. R. R. avenues. A spur runs from the Pennsylvania track into their yard, which has track room for some fifty-five cars. The elevator has a capacity of about 30,000 bushels, and is 48 by 40 feet on the ground, with a one-story engine and boiler room attached. In connection with the elevator three run of stones are employed for grinding corn into feed, meal, etc. The bins for grain in the elevator are located in the top of the building. Under the bins are two floors, so that the grain can be ground and bagged without handling. Grain is run from the bins above either to bags or to the mill-

stones as the case may be, and after grinding the meal is elevated so that it can be sacked without resorting to the nuisance of a shovel and bag-holder.

Connected with the elevator is a storehouse for flour and other goods. This building has three floors, and is 120 feet long by about 40 feet in width. The offices and warehouse of the firm, where their principal business is transacted, is at 12 and 14 Commerce St. The Chicago office of the firm is at 115 Traders' Building, Chicago,

LIABILITY OF INDORSER OF WAREHOUSE RECEIPTS.

In view of the frequency of frauds perpetrated by means of duplicate warehouse receipts for the same property, anything which may put parties dealing in warehouse receipts in position to know their rights and duties and thereby guard against loss, is of value; in this view we call attention to a recent decision of the Appellate

Court of Illinois in the case of Mida vs. Geismann, 17 Bradwell's Reports, p. 209. Mida, a whisky broker, sold Geismann three warehouse receipts calling for fifteen barrels of whisky and purporting to be issued by the Anderson Distillery Co., of Louisville, Ky. The sale was made Dec. 12, 1883. About a year after the sale the distillery company failed, and Geismann called for his whisky and it was not forthcoming. Geismann then sued Mida, claiming to hold him on two grounds; first, that the warehouse receipts were fraudulent when issued, because it was claimed that there was no whisky in store to meet such receipts when they were issued, and secondly, that Mida having placed his name on the back of the receipts for the purpose of assigning them, became liable the same as an indorser of a promissory note.

As to the first point the court held that as the buyer of the receipts had taken no steps to get the property called for by them for more than a year after

he bought them, the mere fact that the property called for by the receipts was not in store a year after they were sold was not evidence that it might not have been on hand when the receipts were sold. That if there was in fact no property in store at the time the receipts were sold, the seller would be liable for the purchase money, but not if the property was removed after the time of the sale.

Secondly, it was held that an indorser of a warehouse receipt is not liable the same as an indorser of a promissory note, but the only effect of his indorsement in blank is to assign his title to the receipts and property represented by them, and is in effect an indorsement without recourse. Of course the same principles will be applicable to grain receipts.

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WILKINSON, GADDIS & CO.'S ELEVATOR AND STOREHOUSE, NEWARK, N. J.

where Mr. Dougherty, who is in charge, may be found.

Messrs. Wilkinson, Gaddis & Co. handle hundreds of cars of grain, flour, etc., every month, to a trade which has been constantly growing ever since the firm commenced business. They also handle immense quantities of canned goods, having at times as many as forty carloads on hand. The financial strength and standing of the firm is excellent, as, indeed, it must needs be, to carry on so large a business. Their trade has been built up not only by securing such facilities and connections as have enabled them to serve their customers in the best possible manner, but also by catering to the wants of the trade, with which their experience has made them familiar. Added to this, those business methods and principles of fair dealing which turn the buyer into a regular patron are to be given due credit for the expansion of the business of this firm.

SPEED AND CAPACITY OF ELEVATORS.

There has recently been more or less comment about the proper speed for elevators, some of the inquiring minds insisting on a fixed and uniform speed for all sizes and kinds of elevators.

Were it not for the fact that all elevators, without reference to the size of the head pulley, must discharge over and beyond the mouth of the down stem of the elevator, there would be no trouble in fixing a uniform speed which would be good for any and all sizes of head pulleys. As elevators are now constructed forty revolutions is a fairly good speed for elevator head pulleys of 36 inches diameter, especially for grain or other heavy material. The same speed would be exactly right for a pulley 12 inches in diameter, only for the extra effort required to get the material beyond the mouth of the down stem of the elevator.

Elevators discharge by centrifugal force. The centrifugal force of all revolving bodies making an equal number of revolutions in a given time, is in exact ratio to the diameter of the bodies, otherwise pulleys in an elevator. If the centrifugal force of a 12-inch pulley making forty revolutions be rated at 1, then the centrifugal force of a 36-inch pulley making the same number of revolutions would be 3.

Now it is plain enough to be seen that the 36-inch pulley needs three times the force that the 12-inch pulley does, because it has to throw the material three times as

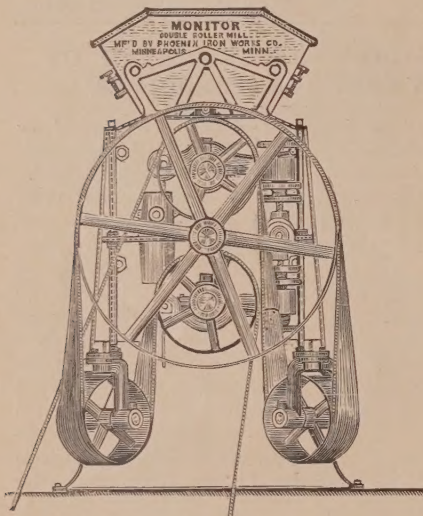


FIG. 1.

THE "MONITOR" THREE-HIGH ROLLER MILL.

Our readers are all probably aware of the revolution in milling that has been accomplished by the introduction of the roller mill. The success which attended the use of

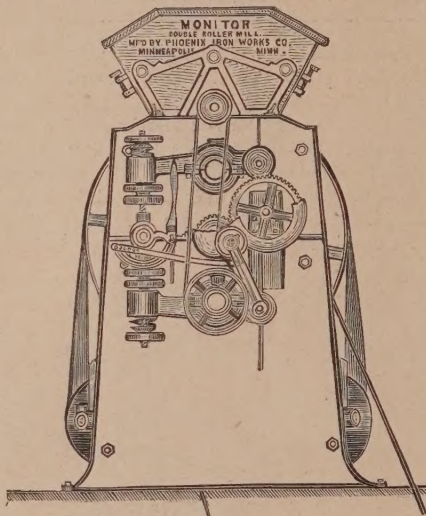
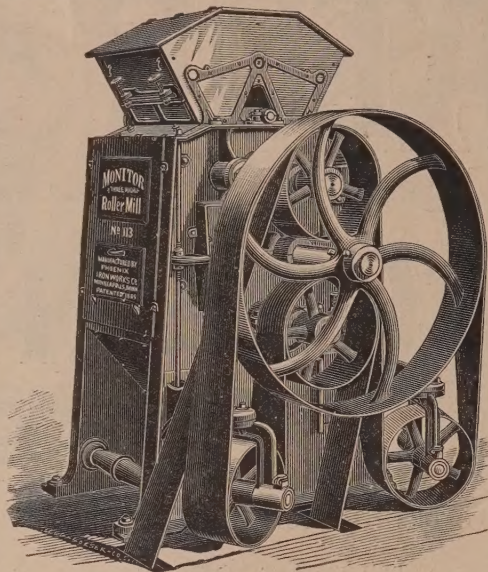


FIG. 2.

THE "MONITOR" THREE-HIGH ROLLER MILL.

far in order to clear the periphery of the pulley. So far they are both equal, but both have to throw the material beyond the mouth of the down stem, and there is where the large pulley, at the same speed, has the advantage of the small one, because the width of the mouth of the small pulley elevator-leg is but little less than the large one; hence to overcome that relative difference, the small pulley must have more force, otherwise more speed.

As stated, the centrifugal force of revolving bodies is as to their diameter and the square of their velocities. With these two well-known laws before them as a guide, those who desire to be exact about the matter can figure out the proper speed for any size pulley, taking the 36-inch pulley at forty revolutions as a basis, and allowing the mouth of leg of same to be 9 inches wide, which is pretty close to common practice for elevators of that size. For other sizes of pulleys they must measure the width of the leg and calculate accordingly. They will find the calculations somewhat difficult, but then, I suppose, close inquiring minds ought to be able to do it. For the benefit of those who do not care to calculate, I will say that anywhere from 37 to 40 revolutions will work well enough on 36-inch pulleys and 42 to 45 revolutions on 18 to 22-inch pulleys.

The capacity of an elevator is easily obtained. First ascertain what the cups will hold, then ascertain the number of inches the belt travels in one minute. Divide that by the number of inches the cups are apart, and multiply that sum by 60, which will give the number of cups emptied in one hour; again, multiply by the quantity of material held by each cup, reduce the whole to bushels, and you have the per hour capacity of the elevator.—*R. James Abernathy in Modern Miller.*

and shows working of conveyor as before described. Conveyor trough is made of steel, and the upper end fits tightly against middle roll. It acts as a scraper and is adjustable.

Our space will not permit a further review of this machine in detail. Millers interested can be furnished with descriptive matter and prices by addressing the patentees and sole manufacturers, THE PHOENIX IRON WORKS CO., Minneapolis, Minn.

ELEVATOR RISKS.

Elevator risks are considered by insurance companies as very desirable risks, and they are eagerly sought. Rates generally appear to be full and the physical hazards do not seem to be great. As to ownership the moral hazard is good, but as to employees it is bad. The opportunities for swindling are good, and since a fire wipes out all, it is not strange that fire should be appealed to for the purpose of settling shortages, as it has been done, notably as it was done at Toledo some years ago. Elevator crookedness was recently developed at Buffalo, where a grain-stealing conspiracy of considerable extent, involving prominent members of the Merchants' Exchange, was unearthed and indictments found by the grand jury against several of the conspirators. It is said that the Richmond and other elevators have been robbed of at least 10,000 bushels of grain. Four men, three of them members of the Merchants' Exchange and well-known citizens, and one connected with the Richmond Elevator, are known to have

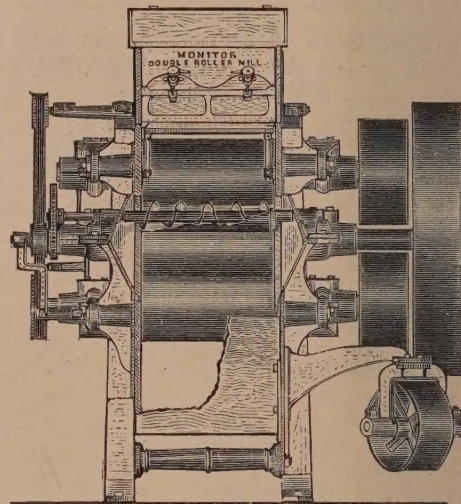


FIG. 3.

roller mills in flour-making, especially their capacity on "first break," soon led to their utilization in part for purposes of grinding feed, corn, distillers' grain, etc., until now it is plain that the roller mill is to become a fixture for these purposes also.

Of the machines thus employed none have achieved a wider or better reputation than the "Monitor" Three-High Roller Mill, which is in use in almost every variety of establishment in all parts of the United States. It is built in five sizes, double and single, and is used for grinding feed, corn, screenings, rye milling, etc.

In the accompanying illustrations Fig. 1 (sectional view) shows the belt movement, a pulley on each roll with two idlers for guiding and tightening the belt. A light, double endless belt, once put on may be run until completely worn out, as the tighteners will take up twenty inches of slack. There is, in consequence, no stopping to lace, and no slipping, and with the positive differential, the manufacturers believe they have in all the most perfect drive that has yet been placed on roller mills.

Figure No. 2 shows the back of machine with adjustments. The hand lever for setting and tightening rolls is so connected with swing idler that when the rolls are thrown apart shaker belt slackens and the feed is instantly stopped. Also shown are the gears for driving conveyor which is used for carrying ground material from the upper and middle rolls to the right and left, through pockets around the unground stock going to the middle and lower rolls. Thus do three rolls do the work of four. The pockets are provided with valves to prevent damage to conveyor in case of choke in spout below the floor.

Figure No. 3 is a sectional view lengthwise the roll,

been indicted. Two have given \$2,500 bail. There were three conspiracies, the elevator man being the only man identified with them all. He had charge of the loading and unloading of grain vessels, and directed the general business at the elevators. When there was grain on hand he notified a fellow-conspirator. A boat was sent around and loaded, and the fellow-conspirator disposed of the plunder, giving the elevator man two-thirds of the proceeds and keeping one-third. Beside the criminal indictments, it is said that the persons implicated have also been served with papers in civil suits. The practical question, growing out of this piece of news, is whether, in case of fire, the insurance companies would not have to stand in the gap, as they have often had to do heretofore when elevators have been burned just to conceal such stealings and shortages?—*Cincinnati Price Current.*

Referring to the rumor of a great combination of millers throughout the Northwest, a prominent miller said today that the scheme, although not new, was a most magnificent one, and that it would be probably carried out soon far enough to include all the city and country mills not only in the Northwest, but in the United States, and would also include the elevators, when they would be in a position to dictate terms to railway companies or buy them out. From that point it would not take long to buy up all the wheat farms in the country and compel England to buy all the flour for sale. In another year the syndicate will construct a tramway to the moon, where, he thought, the local mills might be laid out cold and the inhabitants, willing or unwilling, be crammed full of "Minneapolis Lily," "Snow Crust" or other well-known brands.—*Minneapolis Market Record.*

THE SHIPMAN AUTOMATIC STEAM ENGINE.

The rapidly increasing use of small engines for light manufacturing and for industrial purposes where only a small amount of power is required, or only required at intervals, is one of the developments of the past few years. The *Iron Age* in a late issue truly says: "Steam engines of small sizes, and capable of furnishing a horse power without an extravagantly large expenditure of fuel, are among those portions of small manufacturing plants which are deservedly looked upon with much interest. Within the past few years improvement in the building of such engines has been unusually rapid, owing partly to progress in all lines of steam engine designs, and in a measure also to the increasing competition from gas and hot-air-engines and other schemes of power supply."

We illustrate on this page an engine which is designed especially for such purposes as elevating grain, grinding corn or feed, and for all such operations as only require a small power, or power at intervals, and where the services of a fireman would be too great a proportional expense, as well as the cost of fuel in getting up steam. In the Shipman Automatic Engine, a cut of which is given on this page, the fuel used is kerosene; of a quality 110 to 115 test. The cost by the barrel is about 74 cents per gallon. This test of oil is said to be absolutely safe, and the advantages of using it are that a small amount of storage room is required, and the dirt from coal and wood is avoided. The manufacturers guarantee that not more than a half gallon per hour per horse power will be used, which is certainly a cheap power, although some of their customers are using a much less quantity.

A reference to the engraving and the explanatory letters will enable the reader to understand the construction and operation of this engine.

The boiler is sectional, with tubes screwed into the back. Each tube is tested before use to 400 pounds pressure to the square inch, and the boiler, when completed, is also tested to the same pressure. A pop or safety-valve is attached to the boiler, of the same principle as that used upon locomotives. The boiler can not be exploded. A coil pipe heater delivers water into the boiler at a temperature of 180 degrees or more. The water supply is regulated by a float in the float chamber, connected with a valve at the pump, which opens and closes automatically, and thus keeps a uniform supply of water in the boiler.

The pump is made of brass, in regular engine pump form, with lift and force valves; the plunger is connected to the main shaft by an eccentric, and is constantly working when the engine is in motion, and, in connection with the water regulator, keeps a uniform supply of water in the boiler. An automatic governor on the shaft increases or decreases the opening of the steam ports and thus keeps a uniform speed of the engine with a varying load. The cylinders are kept lubricated with a self-oiler. The shafts have oil cups. The connecting rods are automatically oiled. The wrist pins are of hardened steel. The piston has packing rings, and all parts are provided with means of adjustment for wear.

The oil tank holds about two gallons. This tank has a water space between the oil and fire box, and this space is filled with water from the feed-water supply and thence pumped into the boiler. In this way there is a constantly changing jacket of water three-fourths of an inch thick in front of the oil, thus making it impossible to heat it.

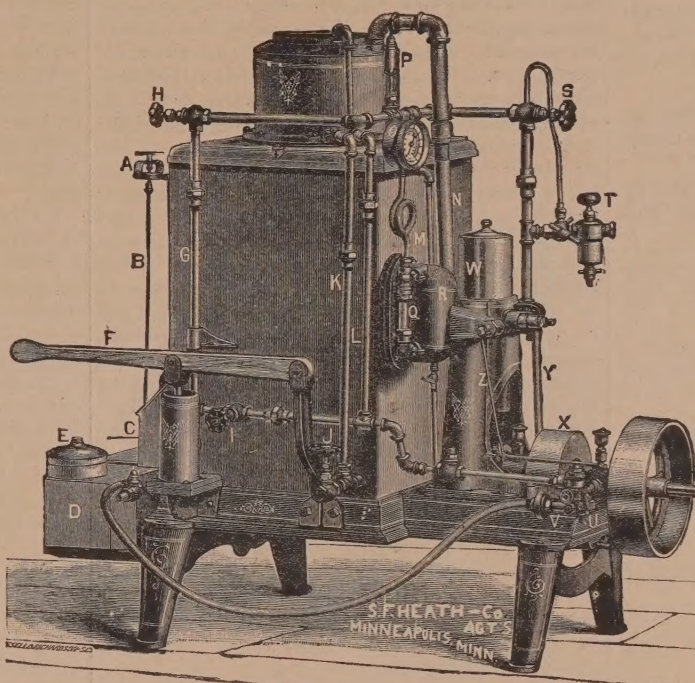
In operation the engine works as follows: The fire is formed by the pressure of air at the starting of the engine and then of steam through the atomizer, which throws the kerosene in a very fine spray in the furnace. This spray is ignited by the torches and causes an intense blast of fire. In this way the oil is consumed without the agency of wicks. The combustion of the fuel is so perfect that there is little or no smoke, and the full value of the heating qualities of the fuel is obtained.

The fire is automatically regulated by the diaphragm. As the pressure of steam rises in the boiler to the point at which the diaphragm has been set by the screw, say 100 pounds, the diaphragm is gradually raised, carrying with it a valve which cuts off the passage of steam to the atom-

izers and thus reduces the fuel supply. If the pressure reaches 100 pounds the valve entirely cuts off the supply of steam to the atomizers. The moment the pressure falls below 100 pounds the valve is released, the steam spurts through the atomizers carrying the oil, which is again ignited by the torches burning at the side of the atomizers. So exquisite is the action said to be, that adding a single lath to the engine's "load" will make an instantaneous and perceptible difference in the fire. And if every belt is thrown off, when the engine is doing its utmost work with a brake on the wheel, the steam pressure will not rise three pounds, so instantaneously are the fires extinguished.

The water supply is automatic. As the float rises in the chamber the rod (7) operates a valve which cuts off the supply of water to the feed-pump. And as the water falls in the boiler the float falls, opens the valve and again supplies water to the pump and boiler.

Among the many excellencies claimed for this engine, in addition to cheapness, economy, efficiency, etc., is that it does not increase the rate of insurance, a point very



THE SHIPMAN AUTOMATIC STEAM ENGINE—NAMES AND DESCRIPTION OF PARTS.

The above cut represents both the one and two-horse power Rochester Model Shipman Engine.

- A. Diaphragm. B. Pipe connecting Diaphragm to Atomizer.
- C. Atomizer. D. Oil Tank.
- E. Lamp or Torch. F. Air-pump handle.
- G. Pipe connecting air-pump to the boiler. J. Blow-off Valve.
- K. The drain-pipe from exhaust steam heater.
- L. The pipe connecting feed-water pump to the heater.
- M. Drip-pipe from the exhaust steam heater. N. Exhaust steam-pipe.
- O. Steam-gauge. P. Pop or safety valve. Q. Water-glass.
- R. Float chamber. S. Throttle-valve.
- T. Swift sight-feed lubricator to the cylinders. U. Feed-water pump.
- V. Strainer to feed-water pump. W. Brass cylinder-cap.
- X. Shield to the governor. Y. Steam-valve eccentric connecting to the governor.
- Z. The perpendicular rod operated by float in float-chamber to cut off the supply of water to the feed-water pump.

much in its favor, when it is desired to supplant horse power, for instance. Elevator owners and others of our readers who wish to obtain full particulars of this important machine should address S. F. HEATH & Co., Armory Hall, Minneapolis, Minn.

The wheat that was in the Duluth fire should not (to be absolutely correct) be taken from the visible at all (said Mr. Cottrell), as it is not consumed, but only damaged, for fire does not destroy wheat entirely, and it will doubtless be rehandled and cleaned and finally be sent here, and thus keep this market depressed just as the Milwaukee wheat did recently.—*New York Produce Exchange Reporter*.

Said an old and well-informed member of the New York Produce Exchange: "Is it not somewhat remarkable that a majority of the failures in the grain trade during the past two years have been on the short side, despite the fact that the tendency has been so steadily downward until recently; and now that wheat has advanced a couple of cents we have two failures in Chicago on the short side. Don't that naturally lead to the conclusion that the strongest men are, as a rule, to be found on the bull side?"

OUR DULUTH LETTER.

[Regular Correspondence.]

The wheat market up to the 27th ult. was dull and featureless, fluctuations being confined to the small fractions. On the 29th a decided change in the tone of the market was noticeable, presumably caused by the large elevator fire, and the price of wheat advanced from 82½c. for the May option, which was the close on Saturday, 27th ult., to 84½c. at the close of business Monday, and the fluctuations since have been rapid up and down; the highest point reached was 87½c. on the 4th inst.

The change in the course of the wheat market has resulted in this cereal regaining a large number of its former friends and increasing the volume of the daily transactions.

The privilege trading here still continues, and our board has taken no steps toward its suppression as yet. Since Chicago has abolished it we do not feel that it is an impediment to us, as we generally follow Chicago, and we also receive a large business from that market in this particular line, which is an inducement to us to still uphold it.

The burnt wheat that was contained in the Union Improvement and Elevator Co.'s Elevator "A" and the St. Paul and Duluth Elevator was sold, the former for \$25,000 and the latter for \$75,000. Messrs. Dunn & Thomson, of this city, were the purchasers, and it is supposed that a number of Chicagoans are interested in this scheme.

The wheat from present appearances bids fair to turn out well and net the investors a handsome profit.

Both elevator companies will in all probability rebuild, but will doubtless choose a more isolated location.

Most all of the insurance companies have settled. There were several minor points brought forward, but the insurance companies refused to recognize them, and rather than lay out of their money some time and incur the expense of a litigation, the grain men waived this point and settled.

The Great Northern Elevator at West Superior was made regular by our Board of Trade on the 4th inst., the resolution to go into effect when certain conditions were complied with.

The substance of the conditions were as follows: To establish their office in Duluth. To furnish the Board of Trade with a bond in the sum of \$20,000. To conform to the Minnesota warehouse, inspection, etc., laws, and the grain inspection by the Minnesota state grain inspectors. To dredge, or cause to be dredged, and maintained, a channel of the St. Louis River to the elevator a depth sufficient to float the largest steamer on the lakes. To furnish the board with a list of the stockholders and amount of stock held by each and the amount paid in.

The foregoing conditions were all complied with, and the elevator was to-day, the 11th inst., declared regular.

The difference between cash and May wheat has widened out to 8½c., and the carriers are gradually picking it up, but the majority of them "filled up" at 7½ to 7¼c. difference.

The country experiences great difficulty in getting cars to ship in their wheat to fill December sales. The railroad people say the demand is about 50 per cent. greater than the supply.

Duluth, Minn., Nov. 11, 1886.

PROBUS.

Two years ago the French import tax on wheat was raised from 60 centimes to 3 francs per quintal. This has caused imports to steadily decrease. Those for the first six months of 1886 have been less than one-third of those in the corresponding period of 1879. Meanwhile the difference in the prices of wheat as between London and Paris have increased from 1 franc 57 centimes to 3¼ or 4 francs, thus proving that the theory that prices fall under protection is a fallacy. Now that France has wholly prohibited our pork, and is steadily moving toward the prohibition of our breadstuffs, what market have our extreme tariff men to offer us, either at home or abroad, in place of that now being lost through the application of their principles?—*Courier Journal*.



Issued on Nov. 16, 1886.

BAG HOLDER.—Frank M. Nicholson, Hunt's, N. Y. (No model.) No. 352,885. Filed June 24, 1886.

BALING PRESS.—Joseph L. Gilbert, Lebanon, Ore. (No model.) No. 352,686. Filed Feb. 23, 1886.

DRIVE CHAIN.—James M. Dodge, Philadelphia, Pa., assignor to the Ewart Mfg. Co., Chicago, Ill. (No model.) No. 352,742. Filed Sept. 6, 1886.

SWIVELED SPOUT AND CASE.—Derastus H. Spencer, Jr., Chicago, Ill. (No model.) No. 352,583. Filed Aug. 7, 1886.

Issued on Nov. 23, 1886.

CONVEYOR CHAIN.—James M. Dodge, Philadelphia, Pa., assignor to the Ewart Manufacturing Co., Chicago, Ill. (No model.) No. 353,256. Filed Sept. 6, 1886.

Issued on Nov. 30, 1886.

CAR STARTER.—Simon Baker, San Jose, Cal., assignor of one-half to Byron J. Rhodes, same place, (No model.) No. 353,345. Filed April 14, 1886.

CORN SHELLER AND SEPARATOR.—Cyrus Roberts, Three Rivers, Mich. (No model.) No. 353,591. Filed Jan. 29, 1886.

AUTOMATIC GRAIN WEIGHING SCALE.—Cyrenius Dominy, Englewood, Ill. (No model.) No. 353,353. Filed July 20, 1886.

Issued on Dec. 7, 1886.

CAR STARTER.—Benjamin C. Pole, Camden, N. J. (No model.) No. 353,759. Filed May 20, 1886.

CORN SHELLER.—Cyrus Roberts, Three Rivers, Mich. (No model.) No. 353,885. Filed Jan. 29, 1886.

GRINDING MILL.—George Raymond and Albert Raymond, Chicago, Ill. (No model.) No. 353,710. Filed Aug. 3, 1885.

ROLLER GRINDING MILL.—James B. Allfree, Cumberland, Md. (No model.) No. 353,031. Filed Sept. 14, 1885.

HORSE POWER.—George Raymond and Albert Raymond, Chicago, Ill. (No model.) No. 353,967. Filed Nov. 14, 1885.

GRAIN IN THE SOUTHWEST.

Special Correspondence AMERICAN ELEVATOR AND GRAIN TRADE.

KANSAS CITY, Mo., Dec. 11, 1886.—The elevators at this point have had little to do the past month. During November it was thought that business was dull as could be imagined, but the month of December has so far discounted it very materially. There is hardly an elevator in the city that has more than paid running expenses, and the idea of declaring dividends is almost out of the question. The receipts during the past thirty days were in excess of the previous year at the corresponding time of the year, when they were the smallest for a series of years. At that time they amounted to 194,111 bushels, while this year the footing is 242,634 bushels—a slight gain. This gain in wheat, however, is more than equaled by the loss in offerings of corn. The latter cereal has entered the elevators to the amount of 121,581 bushels as compared to 252,251 bushels for the same time during 1885. In addition to the above there have been 5,295 bushels of oats received and 3,354 of rye. When the total is taken into consideration it is easy to see that the business here has been of the unsatisfactory kind. There are at present 366,318 bushels of wheat, 188,271 of corn, 22,009 of oats, and 5,745 bushels of rye in store. It is safe to say that there will be little done here the coming years in the shape of building elevators. Those who have heretofore contemplated erecting grain warehouses have come to the conclusion that the time is not yet ripe. There is not so much of the silver border to the trade as was to be noted a few years ago. This is not because Kansas City has fallen off as a receiving point for the grain raised in tributary sections, but because the crops have been so small that there has in many sections been not more than enough for local consumption.

In comparing the total receipts of grain by railroads to this point, it is noticed that the elevators have taken fully

two thirds of all. This is better than they have done heretofore. Two years ago the elevator system here had become unpopular, and it was next to impossible to tempt millers in the territory about here to touch any of the grain that had been in the elevators. The managers of the different plants were told that the public confidence in their operations had been shaken, and at once they set to work to remedy the harm they had done. Instead of mixing No. 2 and No. 3 together, so that they would just grade as No. 2, they gave a better margin. Some of the owners declared that such a policy was suicidal, but the majority of the directors thought it better to have three-quarters of a mouthful rather than none at all. The new departure has worked well, and now it is said that millers buy more wheat in proportion to the amount handled at this point than in any other Western city.

Last spring it was promised that very material changes would be made in the machinery of some of the elevators. This was at a time when it was thought there would be a full crop of corn at least. When it was known that this crop had proved a failure a change came over the elevator men, and nothing more has been heard of improvements during the present year. So far as can be learned there are no promises of anything new in the city plants the coming year. If they can scrape along until another bountiful crop fills the coffers of the owners, there is no reason to believe otherwise than that there will be material changes made.

So far as the state of Kansas is concerned there has been a regular boom in the building of new elevators. Notwithstanding the crops were so light, elevator manufacturers at the North have had all they could well attend to in that state in keeping up with their contracts. When the fact is taken into consideration that there have been in the neighborhood of 1,000 miles of railroad built, and that at least 300 small towns which had before been distant from direct connection with the head centers of trade have entered the lists for trade, one can have a good idea of the cause for this increased demand for elevators. To be sure many of the plants put up are small, but they are amply large to govern the sections they are put up to accommodate, and in the aggregate the increased elevator capacity of the state has been something to wonder at. Kansas was never noted for doing anything by halves, and in this respect she has been fully up to the mark. These elevators were not built for the trade of the present year, and the consequence is that very few will be disappointed that they pay no dividends on the investment. They were constructed for the future, and in the future they will fulfill their destiny.

The latest reports from tributary sections are good so far as the winter wheat is concerned. In the more western sections there was not such a full acreage planted as was expected, but the eastern and middle sections more than make up the difference. The poorer class of settlers have not full confidence in the infallibility of the wheat crop in the state. They have heard of the rather disastrous failures of the past two years. They have been told that while corn has proven not to be a full crop, yet there was enough raised to support all demands. The result is that they do not propose to indulge in what they are led to consider a species of gambling with the odds against the investor. It may easily be surmised, then, that it will take a couple of years of prolific crops before confidence will be fully restored, and the state will be where it was three years ago, so far as the wheat crop is concerned. Owing to the low price of live stock it is thought that many of the husbandmen will send their corn to market next year rather than to feed it to what must result only in an indifferent investment. Cattle have not been so low as at present for ten years past, and farmers are keenly disappointed. They believe that it would have netted them much more money if they had sent their corn to market rather than to have tried the medium of live stock to insure larger returns. Perhaps they are correct. Anyway elevator men will be astonished the coming year at the increased returns from the corn crop even if the yield is no larger than this year.

The past year the following grain commission firms have entered the arena of trade at this point: Geo. W. Burden, Hall & Robinson, E. O. Lanphere, C. L. Dayton & Co., Menderson & Weil, The Pierce Farmer Commission Co., Snyder & Denton, and H. F. White & Co. To offset these additions there have been about twice the number gone out of the business in disgust. So far as the elevators are concerned, there has been but one firm that has departed, and they were burned out. This was the Advance Elevator Co., and it is understood that they propose to put up another plant within the next year if the

crops turn out to their liking. As it is there are fully enough firms in the city to fill all demands upon the trade, and it is lucky there are no more or they would all gradually freeze or be frozen out.

The total receipts of grain so far this year have been as follows at the different elevators: Wheat, 1,959,962; corn, 1,420,519; oats, 388,371; and rye, 24,891 bushels. Last year at the same time there had been received about double the above in the elevators.

Prices of wheat have gradually gone up during the month. No. 2 red winter started in at 60½ cents and ended at 65 cents, an increase of 4½ cents. No. 2 soft sold at the beginning of the month at 68 cents and closed at 71½ cents, much to the satisfaction of the bull element, which, haply, were in the supremacy here. Corn also showed a better feeling. Although sales were rather light, yet trade was more satisfactory than since the harvest. No. 2 sold at 29½ cents at the opening of the month and closed at 32½ cents—just 3 cents gain. This was not expected, and took traders, as a rule, by surprise. White corn did not show so great improvement, yet on the whole this grade of corn was boosted, to the delight of the majority, from 30½ cents to 32½ cents. It is thought here that the advance will continue. One of the features of the trade in grain this fall has been the almost entire cessation of speculative deals. The old-timers searched their charts to the best of their ability, but in them could see nothing on which they felt they could predicate successful investments, the result was that they wisely kept out of the arena.

Local dealers in elevator supplies report a fair trade in the different lines of articles. While no large contracts have come to hand there has been a more healthy call for goods than the crops of the year would seem to justify. Another feature of the business which is peculiarly acceptable is the cash basis on which purchases are as a rule conducted. In order to attract this class of custom liberal inducements in the shape of discounts have been allowed, and the wisdom of the move is proven by the condition of the books at the closing month of the year. Collections are fully as good as could be expected, and no complaints are to be noted from the trade. The territory covered is also much larger than heretofore, and there is more push to business than ever.

THE DEPARTMENT'S DECEMBER CROP REPORT.

The following crop report was issued Dec. 10 by the Department of Agriculture: The December returns of average farm prices, by counties, show material reduction as compared with values of the crops of 1885, in wheat, rye, and barley. Corn has made an advance nearly equivalent to the percentage of reduction in quantity, and oats, in sympathy with corn rather than with the small grains used for human food, averages a slightly higher value than last year. The farm value of corn was 33 cents per bushel in December of last year. It is now 37 cents—1 cent higher than the crop of 1884. The average for the previous five years was 44.7 cents, and for the ten years prior to 1880 it was 42.6 cents. The prices in the surplus states are: Ohio 35 cents, Indiana 32, Illinois 31, Iowa 30, Missouri 31, Kansas 27, and Nebraska 20. This is an increase over last year of 1 cent in Nebraska, 3 in Kansas, Illinois, Indiana, and Ohio, and 6 in Iowa and Missouri. The average is 56 cents in New York, 47 in Pennsylvania, and 45 in Virginia—2 cents lower in each than last year. Prices in the cotton states south and west of North Carolina are higher than last year; South Carolina 60 cents, Georgia 60, Alabama 58, Mississippi 59, Louisiana 55, Arkansas 49, Texas 60—an increase of 11 cents due to the disastrous drouth.

The average December price of wheat is 69 cents, a reduction of 8 cents from the average value of the last crop, and 4½ cents above the price in 1884. The average in New York is 84 cents, 12 cents lower than last year; Pennsylvania 83, 13 cents lower. The reduction is still greater in several Western states. The average of Ohio is 74 cents, Michigan 73, Indiana 70, Illinois 69, Wisconsin 68, Minnesota 61, Iowa 60, Missouri 63, Kansas 58, Nebraska 47, Dakota 52. There is little decline in the Southern states, in some of which prices are higher than last year. The average in California is 73 cents.

The average value of oats is 29.9 cents, against 28.5 last December. Rye averages 53.1 cents, against 57.9 last year. Barley 52 cents, last year 56.3. Buckwheat 54.4, a reduction of 1.5 cents per bushel. Potatoes 46 cents, 1 cent higher than in December of last year. The value of hay averages nearly \$8 per ton.

SILVER AND WHEAT.

Mr. Moreton Frewen, of England, a writer on economic questions, was asked his opinion whether the fall in the price of silver was connected with the fall in the price of wheat.

"The fall in the price of silver has undoubtedly occasioned a fall in the price of wheat. If Congress had acted upon the advice of the President and stopped all further coinage of the silver last winter no doubt the demand for silver being less its price would have fallen, and the price of wheat to-day would have been some six cents lower."

"By what means does a lower price of silver force down the price of wheat?"

"By stimulating the growth of wheat and its export from India. The money of the Indian is the silver rupee. All the silver the Indian can produce he can take at once to the British mints for free coinage into rupees. Of course, while the London price of silver continues to fall the greater is the amount of silver, that is, the greater is the number of rupees which can be bought with the gold sovereign. Formerly when silver was at 60 pence per ounce and wheat was fetching two sovereigns per quarter, the Indian exporter received in London only twenty-three rupees—that is, the equivalent of this sum in silver bullion. Now, while wheat has fallen to a sovereign and a half per quarter, the price of silver has fallen to 44 pence per ounce, and therefore the Indian exporter gets twenty-five rupees. That is to say, while your farmers get 30 per cent. less than the farmers of Oude and Penjaub, selling in the same market, get more than before, and therefore your exports of wheat to Europe are falling off enormously and the Indian exports are increasing annually by the whole amount of your shortage. It is only recently that this curious condition of things has become apparent. People who were watching the fall in silver used to say, 'Oh, well, it won't affect trade, because, although the Indian gets more rupees for a gold sovereign, yet those rupees must be falling in value in India; that is to say, they will buy less of wheat or cotton or labor;' but now the entire evidence goes to show that this is not the case. On the contrary, the rupee is more valuable to buy commodities in India than it was when the price of silver was 30 per cent. higher."

"What is the amount of the fall in wheat which has been brought about by the fall in silver?"

"Mr. Inglis Palgrave, the ex-editor of the London *Economist*, and one of the first economic authorities in England, stated to the royal commission that the effect of the fall of a penny in the Eastern exchange rate (that is in the exchange value of the rupee) is equivalent to a fall of 17 pence (34 cents) per quarter in the Mark Lane price of wheat. Now the rupee has fallen from 22 pence to 17—that is, 5 pence. The amount of the fall in wheat brought about by the fall of silver aggregates, therefore, some seven shillings per quarter, which amounts to a fall of price here in your elevators amounting to 24 cents per bushel. Do you wonder that your farmers are feeling the pinch? We in England have appointed a commission to thrash out the whole question, and I hope that between Westminster and Washington some right issue will be obtained."

THE GREAT NORTHERN ELEVATOR AT WEST SUPERIOR, WIS.

The Great Northern Elevator, which has just been made "regular" by the Duluth (Minn.) Board of Trade, is located in West Superior, Wis., on the Bay of St. Louis. On land the elevator connects with the railroad, three tracks leading into the house. A yard has been completed which will hold 300 cars, and this is only one-fourth of the proposed capacity. On two of the tracks grain can be delivered into cars at the rate of twenty cars at a time.

On the water side the elevator is shut off from a dredged channel from 16 to 18 feet deep and 30 to 50 feet wide, and connecting with the main channel of the St. Louis by a narrow strip of land, on which the dock is to be built. A few days' work, however, will connect the dredged channel with the elevator, so that in the spring of 1887 any vessel plying on the lakes will be able to reach the house to receive grain.

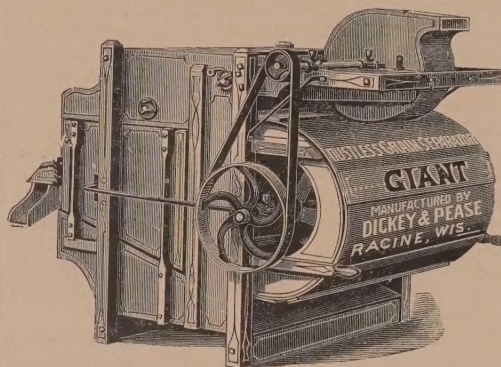
The elevator proper is 385x90 feet and 160 feet high. Its foundation rests on piles. The capacity is 1,750,000 bushels of grain. Each pit is provided with two elevator legs, and there is a complete outfit of Barnard & Leas

Cleaners and of Fairbank, Morse & Co.'s Scales. The steam power is supplied by four tubular boilers, 16x6 feet, each containing sixty-four 4-inch flumes. The building is provided with incandescent electric lights, and has a complete system of water pipes and hose for fire protection; in fact, the house is first-class in every respect.

GRAIN SEPARATORS—A NEW FIRM.

The firm of Dickey & Pease, Racine, Wis., manufacturers of fanning mills, etc., was dissolved the 15th of last month. Mr. E. H. Pease, for years the managing partner of the concern, now takes charge of the Pease & Crosby Mfg. Co., of Racine. He takes with him his famous patent dustless grain separator (heretofore called the "Giant," but hereafter to be called the "Pease" Separator), he being the inventor and owner of the patent. These machines, therefore, can be purchased in the future only from the Pease & Crosby Mfg. Co.

The new company requires no further introduction to the grain trade generally than the announcement that Mr. Pease is to be general manager. To be a little personal in this connection we would say that Mr. Pease has been the managing partner of the firm of Dickey & Pease for several years, having been connected in business with Mr. A. P. Dickey until October, 1880, at which time Mr. Dickey died. Since that date the business has been continued under the same style of firm (Dickey & Pease), Mrs. Dickey, the widow, succeeding her deceased husband. It is perhaps needless to say that the various improvements made



THE PEASE SEPARATOR.

in the mills the last few years were made under the direction of Mr. Pease, Mrs. Dickey having no active part in the business. Other improvements of value will be added by the new company, and they tell us they intend putting on the market mills of all kinds and separators "that will not be equaled by any others made."

THE CHICAGO BOARD AND SPECULATION.

"The trouble with the 1,800 men on the Board of Trade," said Mr. P. B. Weare, "is that they sit and wait for business to come to them. They have become quite too respectable to get out and 'hustle' for trade, and the young men of the West and Northwest are right out in the field. They are the same class of men who came to Chicago thirty years ago and made by their push and energy this market what it now is. They are the Armours, and the Wheelers, and the Doles of that region, and they work for their towns with a vim which would surprise some of these people on the Board. They get hold of the grain—the actual stuff—and they handle it. Our people have been taking too much altogether to the option business. It is much cleaner, and they can have elegant offices. The business is easily done through the clearing-house of the Board, and there is no running about with samples and rubbing against the actual stuff. But it does not bring the grain itself to us.

"I venture the assertion that if President Wright, who now complains about the grain trade leaving Chicago, had worked as hard to build up a trade in grain for himself he would have 250 cars a day now to handle, and would not bewail the fact that the trade was going elsewhere. I remember the time when Wm. T. Baker was sending corn to every corner of New England, but he doesn't do it now. The nice option business is what took all the leading Board of Trade men, and they began to despise handling the grain. Their energies were put forth in fitting up elegant offices in New York, and they thought more of a 100,000-bushel order which a clerk got in a hotel at night than they did of a shipment of grain. They have neglected the whole basis of our trading and taken

up the speculative part of it, while men who went over the grain fields of the West and Northwest with an eye which couldn't see anything but the grain itself and the way to get hold of it for their towns have been at work night and day. They say the trouble is with our carrying charges," he continued. "Now I don't believe a word of that. Chicago has always done business at a profit, and I believe that is the secret of our success. The trouble has nothing to do with elevator charges. Did the reduction in the charges for the first storage of grain in our houses make any difference in our business? Not a bit of it. There is not a bushel more handled now than before that reduction. The elevators do not make any larger profit than they should make. Mr. Wright is mistaken in his figures as to what they cost. Besides, the money they make stays here in Chicago and helps to build it up. The charges on grain, you will find, are no greater than on flour, and are not at all excessive compared with other storage. No one ever found any fault until these two years of bear markets, with wheat going down all the time, and then people began to find fault. They were not making money, and the commission men, with heavy expenses, had no trade to speak of, and the little they had they did for so small a commission that they had better not done it at all.

"When I was on 'Change to-day this one and that one said they were doing nothing and wanted to know what I was so busy about. I will tell you as I told them. I went into the country and tried to get the business—tried to get hold of the grain. It wasn't so nice, of course, to haul over samples as to receive a clean telegram, but there was a good deal more in it. Of course my firm is a small affair compared to the great firms, and what we can do is also small, but I would rather have a trade in grain at a quarter cent commission than all this option business at a sixteenth. There are men on this floor to-day who would sell 200,000 bushels of stuff for nothing if I were mean enough to ask them to do it, just so that they could make a show of doing something and be somebody in the pit.

"There has never been so much rascality unearthed on the Board as this year," he said, reflectively, as he looked about him, "and it is all owing to the fact that men are being driven to this sort of thing to keep up appearances and save themselves. They are only dishonest because they must be so or go under; and yet they stay here year in and year out waiting for business to come to them. Do you hear that Marshall Field's business, or Henderson's, or Farwell's is falling off? No, you do not; but they do not sit in their offices and expect trade to come to them. They are right out in the field watching every chance, and they more than hold their own against these new Western towns. They do not complain. They keep at work all the time.

"As for Northern points, Chicago can not expect to get the actual grain here. It is against the law of commerce. Duluth is almost as near Buffalo as we are. It has a waterway of its own, and it can not be expected that we can haul grain up and down the Wisconsin hills for 250 miles to get it here. But what is the difference for Chicago whether the grain comes here or not, so long as Chicago money handles it? Wheat now at Duluth is being carried by Armour's money, by Hutchinson's, and by that of other men. We can get and hold that trade as well from Chicago as if the grain itself came here, if our Board of Trade men were alive to the situation—in other words if they paid the same attention to it as they do to their option business.

"The time is coming when Chicago will see more clearly than she does now that the real, substantial basis of the grain trade is grain, and not the speculative part of it, which is but its bay-window. The bay-window is all right, but when all the energies are expended upon it and the Board of Trade men forget all about what this speculation is founded upon, they get into just this trouble they are now in. When the grain begins to go to other points they see that the speculative interests go there with it. That's why these 1,800 men are finding fault with the earth, and they will continue to do so until they turn about face and make a fresh start."

Professor Forbes, State Entomologist of Illinois, has completed a thorough examination of the Southern Illinois wheat producing counties, where losses have been caused by ravages of chinch bugs, and he finds that the infested area has largely increased during the year. He considers the outlook, in consequence, very gloomy for the 1887 wheat crop in that section, unless some unusual state of weather should destroy the brood while hatching.



SEELEY, SON & Co., of Fremont, Neb., write: "Our elevator trade will last all winter, we think."

J. A. CAMPBELL, the well-known Western elevator builder, of Lincoln, Neb., has three contracts on hand, to be finished this year. The prospects for next year's work, he says, are immense.

THE BUFFALO SCALE CO., Buffalo, N. Y., inform us that they are building a 60-ton railroad track scale for the Youngstown Rolling Mill Co., of Youngstown, Ohio; also a 20-ton track scale for Andrews Bros. & Co., of the same place

THE ENGLISH BROS. MACHINERY AND SUPPLY CO. and THE MORSE ENGINEERING CO., both of Kansas City, Mo., have consolidated under the firm name of English Bros. Machinery and Supply Co., and have incorporated the concern. Their line of manufactures includes steam and hydraulic machinery, mill, elevator and engineers' supplies, etc.

On Dec. 15, 1886, at Racine, Wis., occurs an important change in manufacturing circles. The management of the Dickey Fanning Mill and Farm Implement Works will pass from Dickey & Pease to the A. P. Dickey Mfg. Co., who, with increased facilities, will keep this business in the front ranks of the great manufactories of the day.

Williams, Rinehart & Co., of St. Louis, are putting in a large elevator, reels, etc., for the Geo. F. Bruner Mfg. Co.; are building a Rinehart Patent Steam Grain Shovel-ing Machine for a Chicago house; are building a Rinehart Cyclone Clay Crusher for the St. Paul Dry Press Brick Mfg. Co., and have recently completed several important improvements in the St. Louis Carbon Works.

Mr. George J. Fritz, of St. Louis, has recently completed and occupied a new office building, which forms the northwest corner of his large works. It is 25x50 in size, two stories high, with a tower at the front which gives it a finished appearance from a distant point of view, not otherwise obtainable. The first floor is ar-ranged for office purposes, with both public and private offices, and the second is occupied by his expert drafts-men.

TRADE AT PHILADELPHIA.

PHILADELPHIA, Dec. 9, 1886.

Editor American Elevator and Grain Trade:—There is no change to note in the commercial situation. General trade is fairly active, and a hopeful feeling prevails in almost every department. Providing for the requirements of "holiday trade" has quickened the move-ment of merchandise in the special lines that deal in com-modities that are in demand at this season of the year, and the prevalence of a lower temperature in all sections of the country has resulted in a larger distribution of seasonable goods, so that in a general way trade has con-tinued quite active, while the markets have ruled steady. That the volume of business in progress throughout the country is largely in excess of the corresponding period last year is amply shown by a comparison of the traffic returns of transportation companies and the bank clear-ings of all large centers that are not influenced by specu-lative operations, but the comparatively low prices now current for many staple commodities, and the fact that the margin of profit is relatively narrow, is apt to lead to the impression that trade is not as prosperous as it ought to be. Hence the tendency to dissatisfaction that so often finds expression in reports of quiet markets, when the actual distribution of merchandise is heavy and the ag-gregate volume of business is really larger than ever be-fore; but even this phase of business is gradually improv-ing, and with but few exceptions values are gradually moving up to a higher plane.

The wheat market has continued strong, and prices at the close on Thursday showed an advance of 2½ to 2¾ cents per bushel as compared with values ruling at the time of last report. Last week the small increase in the visible supply (due to the fire at Duluth) and higher cables, with an active export demand, were the chief bullish features of the market. Advices from the other side

made a reduction in stocks of wheat and flour in Liver-pool in two months about 900,000 bushels. Stocks of wheat at the chief ports of the United Kingdom are now only about 15,000,000 against over 30,000,000 a year ago. On the seaboard Wednesday, Dec. 1, was the most excited day for months, and here and in New York the strange spectacle was witnessed of carriers refusing to sell and exporters bidding for December wheat on delivery day in competition with the carriers themselves, who were short and fighting the exporters to get their wheat back. In the early part of the present week wheat opened firm and prices went up, but large drops reported in New York and Chicago had a depressing effect, and figures dropped back in the range of about one cent under Monday's prices. To-day the market still declined under lower Western and New York advices, freer receipts in the Northwest and lack of noteworthy demand for export, but the close was a shade up from the lowest point, in sympathy with the partial recovery in other grain centers. The late strength was attributable to Wall street buying of the May option in New York. The amount of wheat on passage to Europe showed an increase of 520,000 bushels. Cables were easier. Local lots were quiet.

The corn market has been firm, but there has been very little demand, either on speculation or for export. Last week prices showed an advance of about ¼ cents per bushel as compared with last report. Spot lots have been strong and higher, under a good local trade demand. To-day the local corn market remains about steady, with no noticeable change in prices. The receipts are rather heavy and the demand of last week is dropping off. The receipts on Wednesday were 17,508 bushels; shipments, 2,218 bushels; stock, 300,270 bushels. The market for oats has ruled strong and higher, under light receipts and a good demand from the local trade. At the beginning of the present week car lots were ½ to ¼ cent lower, with not much trading. The small stock on hand has managed to keep up prices, but there appears to be no promise for an immediate advance. To-day the market for options was dull and a shade lower under free offerings, but in-spections of car lots were light, and the latter were steadily held, though only in moderate demand. The buying is chiefly for immediate wants, little speculation being indulged in.

The proverb about "waiting for dead men's shoes" would apply no less fitly to the eager watching for a war in Europe with which many grain speculators occupy their minds, in the hope that by such an event an upward impetus may be given to the prices of wheat and corn. It is a very sanguinary and unsatisfying state of mind, and there is something incongruous in the idea of a humane man indulging desires which can only be gratified by the bringing of a frightful calamity upon a large part of the civilized world. But men, as a rule, can readily accustom themselves to the contemplation of misery which is re-mote and indeed only visible to the mental eye, and find no difficulty in making a cool calculation of the profit which they may derive from it. In the present case, how-ever, they may have to wait a long time for the fulfill-ment of their wishes. It seems quite probable that Europe will require all the wheat that this country can spare be-tween this date and the 1st of July, 1887, but that the price obtained for it will be at best very moderate. The prospect is on the whole not a discouraging one, and the fact that its realization does not depend on the occurrence of wholesale slaughter and infinite suffering is certainly not to be counted as a drawback.

In advancing the freight rates on grain to Atlantic ports on the basis of 39 cents from Chicago to Philadelphia or New York, the trunk line managers have put on wheat, corn and flour exports a tax 5 cents higher than the high-est rate charged last winter, though the price of grain is more than 5 cents lower. The railroad companies in this exaction do not recognize as they might either the equities of the produce trade or of their traffic. They are hand-ling a far heavier grain tonnage than last year, they are doing a much heavier general business, and their traffic earnings are greatly in excess of the earnings of a year ago, and the new winter rates are an unjust addition to their comparative superfluity extorted from the relative poverty of the interest taxed. It is also a proper subject of consideration in adjusting grain rates that any given charge is relatively a much higher tax on grain than formerly. With wheat paying the farmer 55 or 60 cents, 30 cents per 100 for freight is a tax of more than 30 per cent., while at the normal prices of a few years ago it would have been only 18 or 20 per cent. This difference in relative positions can not, unfortunately, be generally allowed for in full in fixing railroad tariffs, but the con-

ditions noted above show that in the present instance the advance is an unjustifiable exaction.

During the last three or four weeks transatlantic freights have materially advanced, but the greatest stride has been in offers for the United Kingdom, the continent of Europe and the far East. The increase has not been con-fined to any particular kind of cargo, as it extends to all sorts of merchandise. On Saturday the British steam-ship "North Durham" was chartered to load at this port 80,000 bushels of grain to Cork for order at 4 shillings per quarter, while early in September 3 shillings were offered and taken by many vessels here and at Baltimore. In several instances vessels left here in ballast for Balti-more to get even that rate, paying their expenses on reaching the latter port. In some cases even 2 shillings 9 pence was accepted. The supply of grain tonnage is a little more liberal, but there is a fair demand, and rates are very firmly held. Steamers for Cork for orders, and direct continent, can not be obtained under 4 shillings, and some owners are not willing to charter even at this rate. There is very little berth room offering in regular line steamers. Business has been done for Glasgow at 5d., while Liverpool is nominally quoted at 5d. and Ant-werp at 5½d. to 6d.

GRAIN CHARTERS.

Steamer Lemuria, 8,500 qtrs., Cork, f. o. 3s. 9d.—Jan-uary loading.

Bark Carlotta, 3,500 qtrs., Cork, f. o., 4s.

VESSELS LOADING GRAIN.

The following is a list of vessels loading and to load grain:

	Bushels.
Steamer Lord Gough, Liverpool.....	40,000
" British King, Liverpool.....	24,000
" Ovingham, Cork.....	80,000
" Lemuvia, Cork.....	68,000
" Norwegian, Glasgow.....	25,000
Bark Carlotta, Cork.....	28,000

The following vessels have cleared with grain this week:

	Bushels.
Steamer Indiana, Liverpool, wheat.....	17,000
" Rossini, Antwerp, wheat.....	57,022
" Ohio, Liverpool.....	51,000

Total.....	125,022
Export of corn since Jan 1, 1886.....	1,884,725
" corn same time, 1885.....	5,900,430
" wheat since Jan. 1, 1886.....	5,320,253
" wheat same time 1885.....	3,821,891
" oats since Jan. 1, 1886.....	5,005
" oats same time 1885.....	

J. C. D.

ONTARIO CEREAL CROPS.

The statistics showing area, aggregate yield and yield per acre of cereal crops in the Province of Ontario for 1886 and 1885, together with average of area and yield for the five years' period 1882-'86, are presented in the following:

Crops.	Years.	Acres.	Bushels.	Bush. per acre.
Fall wheat.....	1886	886,402	18,071,142	20.4
	1885	875,136	21,478,281	24.5
	1882-86	982,402	20,635,843	21.0
Spring wheat.....	1886	577,465	9,518,553	16.5
	1885	799,463	9,129,881	11.4
	1882-86	654,360	10,530,031	16.1
Barley.....	1886	735,778	19,512,278	26.5
	1885	597,873	16,533,587	27.7
	1882-86	727,979	19,572,730	26.9
Oats.....	1886	1,621,901	58,665,608	36.2
	1885	1,543,745	55,229,742	35.8
	1882-86	1,490,654	55,333,393	37.1
Rye.....	1886	67,779	1,106,462	16.3
	1885	78,293	1,271,506	16.2
	1882-86	124,575	2,102,453	16.9

Wheat, barley, oats, rye and peas were reaped and housed in fair condition, and the final report of yield dif-fers but slightly from the August estimate. The wheat crop is about 3,600,000 bushels less than the average of five years; barley is only 50,000 bushels less, and oats is 3,330,000 more. Rye is diminishing in breadth and yield.

A prize corn contest has just been concluded at De Moines. There were 152 contestants from different parts of the state. The first prize was won by James Ruff, of Dubuque, his sample ear measuring 11½ by 8¾ inches. It weighed one pound three and three-quarter ounces and contained twenty rows of fifty-two grains each, or 1,040 grains of good corn. The second prize was given to Mr. J. E. Drake, of Saylorville, whose sample ear measured 12½ by 7½ inches, and contained sixteen rows of fifty-three grains each, or 848 grains. Its weight, however, was one pound four and a half ounces.—*Sioux City Journal*.

COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

SPEED OF ELEVATORS.

Editor American Elevator and Grain Trade:—Noticing that there is quite a discussion going on in regard to speed of elevators, I will give my own experience in this matter. The shaft to elevator pulley should revolve at a maximum speed of 40 and a minimum of 35, for all kinds of grain. As long as you use pulleys of from 20 to 60 inches in diameter, the size does not make much difference. If the elevator pulley is very large, the speed might have to be decreased a little.

I have experimented a good deal with speed of elevators. Forty revolutions for a pulley with a 24-inch diameter is just as near right as I can make it. For a 30-inch pulley 37 revolutions is the best speed, which should decrease in such a proportion, as the size of pulley goes up.

Yours truly, M. F. SEELEY.

Fremont, Neb.

THE CANALS AND THEIR OPPONENTS.

Editor American Elevator and Grain Trade:—I notice that the cohorts of the railroads are again preaching their crusade against the canals, and especially against the Hennepin. I notice particularly that some of the Chicago papers have sold their birthright and have inserted matter prepared, and probably paid for, by the railroads; and it is announced that the Hennepin Canal is killed so far as this Congress is concerned.

It is a lamentable fact that railroads can still control the action of legislative bodies. Their arrogance, their discriminations and overriding of wholesome restraint, have been endured by a patient public; but this meddling with legislation demanded by the people is going a little too far.

The whole trouble is that the railroads know that they can not compete with the canals. The history of the Erie Canal, especially during the past two years, conclusively proves this. That is the milk in the cocoanut; and that is the secret of their opposition. It remains to be seen whether the railroads will be able to hoodwink or bribe our legislators.

Yours, HENRY.

CHICAGO'S GRAIN TRADE.

Editor American Elevator and Grain Trade:—Chicago papers are full of discussions as to the decline of Chicago's grain trade. One paper attributes it to the bucket shops. One individual, a prominent member of the Board, says that it is all due to the fact that the members have gone too largely into speculative dealing, and have left the actual grain trade to take care of itself. Other causes named are that the elevator charges are too high, and that the railroads discriminate against the Garden City—which last will be news to many people.

Probably all these are contributing causes; but in the first place, Chicago has not lost her grain trade; and in the second place, the fact is lost sight of that this is a tolerably large country to have only one center for its grain trade. It could hardly be expected that grain, lumber, and cattle will continue for all time to go to one place, and only one place. Great as Chicago is, it is not to be expected that wheat will go from Dakota and Northern Minnesota 500 miles out of its way, when the best port on the lakes is close at hand. No doubt the correction of the abuses named will tend to keep Chicago a great grain center; but other centers for the grain trade must, in the very nature of things, be built up.

Truly yours, ZENITH.

REPORT OF THE ENGINEERS ON THE HENNEPIN CANAL.

The following is the synopsis of the report of the engineers who were appointed under the river and harbor bill at last session to report upon the advisability and commercial necessity of the Hennepin Canal. It was furnished by the Secretary of War to the committee on the Hennepin Canal.

The relation to commerce of the Illinois and Michigan Canal and the proposed Hennepin Canal is principally as carriers and freight regulators; and their usefulness to commerce will depend upon the rates at which freight can be carried on them. The board reports that, in its opinion, a waterway from Chicago to the Mississippi River will be acceptable and useful to navigation; that it will give a waterway from Chicago to St. Paul over which freights of lower cost per hundred, and not demanding as rapid transit, can be transported at rates much below the existing rates by rail, and that the influence of this waterway in reducing rates will probably extend west to the Mississippi River, and that the benefits to the people affected by it will exceed the cost of its construction. The estimates are for a canal 80 feet wide and 7 feet deep, and with locks 170 feet by 30 feet.

1. Marais d'Osier route, length 64 miles; cost, \$5,811,367. 2. Watertown route (via Green River), length 65.2 miles; cost, \$7,307,640. 3. Watertown route (via Pennsylvania's slough), length 64.9 miles; cost, \$6,309,552. 4. Rock Island route (via Green River), length 74.5 miles; cost, \$6,709,835. 5. Rock Island route (via Pennsylvania's slough), length 77 miles; cost, \$6,524,052. There is no question as to the proper location of the eastern end of the canal. It is fixed by the great bend in the Illinois River and the valley of Bureau Creek, where it enters the river at Hennepin. The canal should be so located as to give on the whole the cheapest transportation to the aggregate freight that is to pass through it. Its through freight will probably be derived from the portion of the Mississippi between St. Paul and Keokuk—508 miles. Keokuk is 124 miles below Rock Island and 149 miles above the mouth of the Illinois. From the greater ease of moving freight down stream rather than up, and the easier navigation in the Illinois River than in a canal, Keokuk may be taken as the most southern point on the Mississippi from which freight might go to Chicago through the Hennepin Canal. Below this point the Illinois River would be used. Even if as much freight would pass through the Hennepin Canal from the lower half of this stretch of 508 miles from Keokuk to St. Paul as from the upper, the western terminus of the canal should be as near the middle of the stretch as practicable, which would carry the termination far above Rock Island. In fact, if the canal accomplishes what is hoped for it the larger part of its business will come from points above Rock Island. This larger business should have this shortest route to Chicago. It would be unjust to lengthen its route to accommodate a small part of its business.

The two terminal points which have the strongest claims are Rock Island, for the Rock Island route, and a point two miles below Albany for the Marais d'Osier route. Albany is thirty miles above Rock Island, and the route from points above this to Chicago is forty miles shorter by the Meredosia than the Rock Island route. With the Rock Island terminus all business from up the river would have in this additional forty miles to descend Rock Island Rapids and then lock up twenty feet to get back to the level of the Marais d'Osier route.

For freight bound west the objection to the Rock Island route would be that it would give through freight from points above Albany, the increased lockage and distance above mentioned and thirty miles of the increased distance would be up stream and over the Rock Island Rapids. If the canal is to do a large business the bulk of the freight would have to be supplied through this detour past Rock Island. The board deems that the canal will do a business large enough to develop all the terminal facilities it may need for transacting its business. If its business were local and small, as would be the case if the Rock Island, Moline, and Davenport freight formed a considerable portion of its whole freight, there would be a decided advantage in having its terminus at Rock Island, which could easily supply terminal facilities and give it local trade; but in that case it would lose its strongest claim for being built by the United States. The Watertown route has its terminus intermediate between the other two. Situated on the rapids, its approaches are bad, and this route from St. Paul to Chicago is twenty-one miles longer than the Meredosia route. In view of

all the circumstances of the case the board prefers the Meredosia route. Objections have been made to this route on account of the overflow at its western end at times from the Mississippi River. These objections are unimportant in comparison with the advantages of this route.

The Illinois and Michigan Canal commences at Bridgeport, on the south branch of the Chicago River, five miles from Lake Michigan. It terminates in the Illinois River near LaSalle, ninety-seven miles, and has fifteen locks. The terminus of the canal is in a pool created by the dam at Henry. The improvements at Henry and Copperas Creek, although not a part of the canal, form an extension of it. They consist of a dam and lock at each place. The locks are 350 feet long by 75 feet wide, with 7 feet of water, which is intended to give 6 feet for navigation. Tolls are levied by the state upon passing commerce. The United States contributed \$62,360 toward the construction of these works. In further extension of this system the navigation of the Illinois River below Copperas Creek is being improved by the United States by a dam and lock, and at LaGrange, and another at Kampsville. These are well advanced, and can be completed for about \$700,000.

The board remarks that in the act of cession the United States is required to enlarge and maintain the present canal, but the act is silent regarding the obligations resting on the canal and which will continue to attach thereto under whatever ownership it may pass. The act is also silent concerning the works at Henry and Copperas Creek. The board arrives at the conclusion that the present canal should have to be enlarged and maintained in its entirety for the reasons: 1. Two locks and dams are being constructed by the United States on the lower Illinois, above which there is a stretch of eighty-eight miles of river improved and controlled by the state of Illinois and not included in the act of cession. 2. All dams below LaSalle are, or are to be, provided with locks of a size unnecessarily large for ordinary canalboats. They have been designed for the extension of a river navigation of the first class, and form part of a project involving the continuation of slack-water navigation from LaSalle to Joliet upon the same scale. The canal lying between these points might be enlarged and utilized, but the cost of doing so upon the scale of the improvements below LaSalle would be greater than that of improving the river itself, and even when completed would not be as easy of navigation (annual report, Chief of Engineers, 1884, pp. 1958-9), and were the United States in possession of the canal it would be judicious to abandon it between LaSalle and Joliet in favor of the river.

The northern terminus of the canal is in the very heart of the business portion of Chicago, and through it all the commerce to and from the lake must pass. There are numerous bridges on this part of the river, and the delays arising interrupt travel to such a degree as not to admit of much increase of commerce. It therefore appears that whatever enlargement of the canal is made from Joliet northward, it should be made to end where the line of the canal could be easily diverted to a more favorable terminus. The board gives the following reasons for the non-acceptance by the United States of the cession of the canal under the conditions of the existing act:

1. The canal should not be enlarged upon the whole of the present plan, and it would be judicious to abandon the greater portion of it.

2. The act does not provide for the cession of that portion of the Illinois River improvement now owned by the state, which forms an essential part of the through line.

3. The act is not sufficiently definite as to the obligations which the United States would assume in accepting the transfer of the canal.

At the same time the board is of opinion that the water route of which the canal forms a part should be constructed by the General Government, and that acceptance should promptly follow a proposition to transfer it under conditions so modified as to remove the objections stated. Should cession be accepted under its present conditions, the cost of enlarging the canal to the dimensions of the Hennepin Canal would be about \$2,400,000, with an annual cost of maintenance and ordinary repairs of about \$50,000.

A Minneapolis telegram says: "The elevator men declare that their country houses are full and running over, and farmers have stopped selling simply because their wheat can not be taken in. These stories must be taken with a grain of allowance, however, as nearly all the big elevator companies are bearish. Having sold large quantities of wheat for May delivery, they are anxious to keep prices down as low as possible for delivery this month."

Oliver Dalrymple: "I can hardly tell anything about the amount of wheat in the country. When I studied algebra we used to denote an unknown quantity by x, and perhaps x would be the right designation for the amount of wheat back. I should think that fully 40 per cent. of the Dakota crop is still in the country, and about 60 per cent. of the Minnesota crop is yet to come out."

INCIDENTALS.

It is estimated that this year's yield of corn in Illinois is 73 per cent. of an average.

S. B. Stevens, of Red Wing, Minn., was the first regular wheat buyer in Minnesota.

A farmer of Weston, McLean Co., Ill., gathered 7,000 bushels of corn from 120 acres this season.

Minneapolis millers place the combined wheat crop of Minnesota and Dakota at 90,000,000 bushels.

One company, the Mutual Fire Insurance Co., of New York, lost \$30,000 in one of the Duluth elevators.

Thirteen grain-laden boats are reported to be frozen in the canal between Albany and Little Falls, N. Y.

Dunn & Thomson, of Duluth, bought the salvage of the burned elevators "A" and "Q," paying therefor \$100,000.

The exports of wheat and flour during November were 12,330,292 bushels, an increase of 6,994,592 bushels over the same month last year.

Many Dakota farmers this year raised flax for fuel, a ton of flax being considered more valuable for heating purposes than a ton of soft coal.

Deacon Geo. F. Morris, of Bingham, Clinton Co., Mich., has given his note for \$300 for "bonded wheat" at \$15 per bushel.—*Detroit Tribune*.

V. J. Tefft, editor of the *Mason News*, estimates the amount of money carried out of Ingham Co., Mich., by the Bohemian oat agents at \$250,000.

The Kansas Central Elevator Company, of Leavenworth, Kan., has the largest corn sheller in the world. The machine was invented and built by a Kansas man.

Some man has discovered that corn enough was raised in Nebraska this year, if loaded into wagons, ten bushels to the load, to make a string around the earth and several bushels to spare.

A newly naturalized citizen of Hardin county, Iowa, voted a grain ticket at the recent election, and was obliged to wait till the votes were canvassed before he could draw pay for a load of oats.

The wheat yield of Ontario this year is 3,500,000 bushels less than the average for five years, barley 50,000 bushels less, oats 3,500,000 more, peas 3,000,000 more, and corn 1,000,000 less.

The exports of wheat, and wheat in flour, corn and cornmeal from the United States for eleven months ending Nov. 30, were equivalent to 135,076,674 bushels, against 119,572,868 bushels the same time in 1885.

Two farmers near Urbana, Ill., husked 237 bushels of corn in the field in two days. They were working for a wage of \$100, their opponents being two Missouri men, who husked in the same length of time 212 bushels of corn.

The 200,000-bushel addition being built to the Pillsbury elevator in East Minneapolis is about completed. The sides are up the full height, and the roof is being put on this week. This will give the house 650,000,000 bushels capacity.

Examination of several car loads of wheat arrived at Winnipeg from Western Manitoba showed the grain to be so saturated with smoke blown into fields of standing grain from prairie fires as to give it an acrid taste and render it utterly useless.

Boston Advertiser: "It may be in the interest of morality to have no more 'puts' and 'calls,' but until they sell grain in Chicago over the counter in the Board of Trade, the purchaser carrying off with him what he buys, gambling will go on in the usual style."

The directors of the Chicago Board of Trade are evidently in earnest in their efforts to purge the organization of practices which are uncommercial and unfair. One of the parties suspended at the meeting recently is reported to have uttered a circular a few days ago in which he intimated that the rule against privileges would prove to be, like all the other rules of the board, a dead letter. There is reason to believe that this idea has obtained recently to a rather wide extent, and perhaps some occasion

was given therefor by the laxity of interpretation attributed to some of the directors in the past. But the board is on the right track now, and its course is earning for it the commendation of all good men—only that some of them may object to a rather irregular distribution of punishment.—*Ex.*

Chicago elevators contained, Monday, 11,853,983 bushels of wheat, 3,864,388 bushels of corn, 977,076 bushels of oats, 135,000 bushels of rye, and 317,458 bushels of barley, making a grand total of 16,967,905 bushels of grain, against 16,175,505 bushels a week ago, and 15,612,917 bushels at this period last year.

An authority gives the consumption of corn as follows: "One hundred and eighty million bushels are used in human food, 624,000,000 for working animals, 20,000,000 for seed, 100,000,000 for the production of spirits and glucose, 65,000,000 for export and 900,000,000 for the food of meat-producing animals."

No kind of grain, and excepting hay no other farm crop, is so generally consumed on the farms where grown as is corn. It is a ration for every kind of farm stock, and in many places is an important part of the food of the farmer and his family. We are increasing our exports of corn, as the people of Europe are learning its value, but to do this we must increase the quantity grown, as its use here is never likely to be less than it is at present.

The coolness of the temperature at Duluth appears to be equalled by the reported coolness of wheat operators there, "who stood around and sold wheat short while the elevator fire was putting out of sight nearly a million bushels." They were merely wagering that a "sentimental advance," resulting from reports of the fire, would be followed by a collapse of values. The collapsing season has probably passed for the present.—*Cincinnati Price Current*.

In the exports of corn New York shows a decrease for these four months of 2,700,000 bushels, while the decrease at Baltimore was only 400,000 bushels. These gains at Baltimore are the more remarkable when we remember that they have been made during the open canal season, when New York generally runs so far ahead of us in grain receipts. With the closing of the Erie Canal, on Dec. 1, New York will be confined to railroad receipts alone, and then, for several months, Baltimore will make a still more favorable comparison in the receipts and exports of grain.—*Baltimore Journal of Commerce*.

Some time ago when bar silver in London was 4d below its present figure, the belief was expressed, in view of existing conditions, that it would continue to go up and rule high. The substantial result to this country lies in the fact that the importation of Indian wheat by the United Kingdom is embargoed and a market is made for the American product. There seems to be only one more thing required to make wheat move very freely, and that is ocean freight room. On that point there ought to be little apprehension. When other things that pay better are moved there will be plenty of room for wheat. There is, therefore, a good state of affairs to come. The railroads are sure of a big winter tonnage, and all that is needed to keep up a good feeling generally is to see a large and genuine wheat movement.—*Wall Street News*.

President Wright, of the Board of Trade, estimated the other day that the city owed \$60,000 to commission men who paid a license under misapprehension of the term "broker." Collector Onahan said that that was far in excess of the sum collected from commission men and brokers together. All strictly commission men who took out a license have had their money refunded upon making a proper affidavit to the Comptroller, and the city owes them nothing. A license is now collected only from brokers, but much difficulty is experienced, as four out of five men who are classed as brokers in all available lists escape payment of the fee by swearing that they are not doing a brokerage business. So far this year only 266 have taken out licenses. Owing to the obstacles the Collector has recommended that the ordinance be repealed. Until it is he will enforce it as strictly as possible.

"Minnesota will be a winter wheat state in a few years," says Joe McDonald. "It has been grown in Northern Iowa with great success, and the soil and climate of Southern Minnesota, and for that matter nearly the whole of the state, are not greatly dissimilar from Northern Iowa. Repeated failures of winter wheat in Illinois, Missouri, Kansas, Indiana and other states where the climate is more trying by reason of frequent thaws and freezes, has led to experiments in winter wheat planting

on a large scale in the more northern latitudes where winter comes in the fall and stays until the final break-up in the spring, and the result has encouraged the farmers to plant increased areas to this kind of grain. This fact is of no importance as affecting market fluctuations, but as showing the change that is going on in an important branch of agriculture it is interesting."—*Daily Business*.

A Western man, too smart by half for his own interest, or the good of his soul, drove into the town with a load of wheat in bags, to be sold by weight, so many pounds to the bushel. Finding a merchant ready to purchase, the seller demurred to the proposal to drive upon the buyer's scales, as he was afraid he might not be fairly dealt with. "Very well," said the merchant, "if you prefer it, drive on and be weighed out there," pointing to the next platform. On he went, keeping his seat on the load; the merchant opened a little door in the floor, asked the seller how many bags there were, and being told twenty, pronounced the load to be forty-two bushels. "All right!" said the seller, and then returned and deposited his wheat at the buyer's store and went off, never finding out that he had been weighed on the platform of a fire cistern, and that he had sold fifty bushels of wheat for forty-two!—*American Grocer*.

BARLEY IN THE NORTHWEST.

Although the barley crop of 1886 in the states tributary to Chicago and other Western lake and river ports is estimated by the United States Government as about 1,000,000 bushels less than that of 1885, and by commercial authorities at about the same as last year, the receipts in Chicago from Aug. 1 to Oct. 23, 1886, have been about 2,200,000 bushels more than in same time in 1885; and the shipments from there have been about 1,200,000 bushels more. It is also to be noted that, notwithstanding the large early movement of this season, the daily receipts still continue to exceed those of corresponding dates in 1885. The result has been that although the shipments have been about 1,250,000 bushels more than last year, the large receipts have led to a very considerable accumulation of stocks in store in Chicago, which are reported on the 25th inst. at 677,353 bushels, as compared with 120,643 bushels on Oct. 24, 1885.

The increase in receipts at Western markets is not confined to Chicago, as the returns for all the eight Western lake and river ports show an increase in receipts from Aug. 1 to Oct. 23, 1886, of about 3,250,000 bushels. In this year's receipts at Western markets are included somewhat larger supplies from California than last fall; this is probably more than balanced by considerably smaller supplies from Canada.

The proportion of the high grades of Nos. 1 and 2 arriving in Chicago from Oct. 1 to 23 has not been so large as during the months of August and September. During these two early months the number of cars which inspected Nos. 1 and 2 was 58 per cent. of the total receipts; during the three first weeks of October this proportion has fallen off to 45½ per cent. The total number of cars inspected from Aug. 1 to Oct. 23, 1886, has been 7,167, which almost equals the total number inspected up to Nov. 30, 1885, which was 7,334. Of the receipts in 1885, 2,345 cars inspected Nos. 4, 5, and "no grade;" this season only 349 cars have been of these low grades. Taking this into consideration, the increase in receipts of good malting barley this season is very considerably greater than the mere increase in aggregate receipts.

The excess over last season in Western lake port receipts, of about 3,250,000 bushels, is certainly equal to any probable increase in the current year's beer trade of all United States over last year. Whether this increase is going to be maintained, increased, or diminished during the remainder of the season, remains to be seen. It is evident that this feature of the trade is most important, and demands constant and careful attention. That the receipts in the West have largely exceeded the expectations of the trade appears clear, from the fact that the price of No. 2 in Chicago has kept gradually declining from the opening price in August, 65 to 67 cents, to 53 to 54 cents at present. Present prices look very low and safe to operate at; but it may not be amiss to bear in mind that the price for No. 3 extra in Chicago ranged from 38 to 42 cents per bushel during January, February, and March, 1878, when all kinds of grain were very much higher than they are now; and that these prices prevailed in a season in the early part of which the barley markets of this continent had been relieved by large exports of over 4,000,000 bushels to England.

THE QUALITY OF ROOFING PLATES AGAIN.

The revolution inaugurated within the past year or two in the roofing plate business (says the *Manufacturer and Builder*) by Messrs. Merchant & Co., of Philadelphia, by the adoption of the system of stamping their goods with the name of the brand and the thickness of the sheets, was a movement in the right direction, for which the fraternity of architects and the building interest should feel themselves laid under heavy obligation. It has placed within the power of the architect and the builder the means of positively assuring himself of the quality of this important material, where formerly he was absolutely dependent on the dealer. The fact that such a reform has been instituted is now generally known to architects, and their specifications are now usually drawn in such a manner as to require that all roofing plates shall be stamped with marks indicating their brand and thickness, which affords a guarantee of quality.

Messrs. Merchant & Co. have found it necessary to issue a circular-letter calling the attention of architects and builders requiring the plates to the importance of drawing their specifications to read, "Gilbertson's Old Method" roofing plates. Every sheet to be stamped with the brand and thickness.

The following letter, which we have just received from Messrs. Merchant & Co., will throw some light on the present situation of the trade which the honorable and creditable stand taken by this house has brought about:

"Dear Sir:—A little over two years ago we announced to the general trade the fact of our guaranteeing roofing plates, and from the editorial columns of the *Metal Worker*, of the issue of Aug. 9, 1884, we beg to quote as follows:

"Merchant & Co., of Philadelphia, in evident good faith, take a long step toward placing two brands of terne plate on the market with perfectly satisfactory guarantees. We note this fact with a great deal of pleasure, showing, as it does, a progress toward that perfectly satisfactory understanding between importers and consumers which is the consummation of all reform in the plate trade."

"Considering the information contained in the above quotation, it is hardly necessary for us to comment upon what has been done during the past two years, as we much prefer leaving it to the architects and consumers to judge whether or not a better class of material is being used in all sections of the country to-day than at any period previous to the time to which we refer.

"In guaranteeing and stamping our plates, our object has been to bring about a better quality of roofing and a fairer competition among the trade generally. We know that the use of inferior plates in past years has resulted, in many sections, in almost driving the use of tin plate out of the market. While our guaranteed plates have been subjected to the grossest misrepresentations, yet they have secured to us the confidence of consumers in general, and when we take into consideration the success that has met our efforts, we certainly have no regrets to express for the course pursued. Our thanks are due our many friends who have showed their appreciation of our efforts to bring about this change for the better, as well as to all those from whom we have received letters of encouragement in regard to the stand taken by this house. In guaranteeing the "Gilbertson's Old Method" and "Camaret" plates, the guarantees of this house have been both specific and definite, leaving it to the consumer to judge whether or not the facts coincide with the representation made.

"We are pleased to note the fact that a far better class of material is being used at the present time than heretofore; and even admitting this fact, the good men of the roofing business are still at a great disadvantage, as those who do not like the idea of having to live up to their contracts by using stamped sheets when the same are specified, are doing their utmost to influence architects and owners of property to allow them to substitute something which they may claim to be equal to the brand specified, though the article to be substituted is offered at several dollars per box less than the plate called for. It is in this way that they are not only able to continue furnishing inferior roofs, but to defeat all honorable competition as well, as no roofer, bidding on work where the tin to be used is selling at \$12 per box, can compete with a man who bids for the same work, but with the intention of using a plate selling for say \$9 per box, the latter, of course, being willing to take his chances of being found out.

"There is much more that could be said in regard to

the important subject of roofing, but the above will cover the principal points we had in mind in deciding to write you this letter. We are, very respectfully,

"MERCHANT & Co."

CORRUGATED IRON WORK.

Owners of saw-mills, planing mills, furniture factories, cotton gins, and in fact all manner of manufacturing establishments where there is great danger from devouring fire, and insurance is correspondingly high, should lose no time in adopting every means of protection from the destructive element.

Among other things, iron roofing and siding is probably the most extensively used to protect from fire originating on the outside, and corrugated or crimped iron ceilings and interior linings to protect inside woodwork.

Foremost among the manufacturers of iron roofing, siding, ceiling, lining, etc., in various styles is the Cincinnati Corrugating Co., whose mammoth works are located on Eggleston avenue, Cincinnati, Ohio.

It is our pleasure to recommend these gentlemen as reliable in every respect—all buyers of experience realize the cash value of this.

THE BUFFALO WHEAT STEALERS.

On Nov. 24 a sensation was created in Buffalo by a discovery which criminally implicated several members of the Merchants' Exchange and a man connected with the Richmond Elevator. The whole thing was a conspiracy by which a systematic stealing of grain has been carried on for several years. A private detective agency was placed in charge of the case some time ago, and after much labor succeeded in collecting evidence which has resulted in the indictment of John A. Campbell, until last week secretary of the new Frontier Elevator, and a member of a grain commission firm; of John Kennedy, whose firm deals in damaged grain; of Andrew Egarter, of a forwarding and commission firm, and of Henry P. Emslie, a son of the foreman of the Richmond Elevator, and employed in the elevator. These men have been taken quietly before the court, arraigned, and liberated on bail. The three first, particularly Campbell, are well-known business men, of good connection and good social standing. Campbell recently bought a house and lot on Linwood avenue, for which it is said he paid \$30,000. It seems from the stories told that there were three conspiracies, and that Emslie was the only one of the four persons who was identified with all the stealings. With each of the other two he had separate and distinct understandings. The stealings, though the implicated parties say it was not stealing, have been carried on for some three years, and the grain thus taken has been confined to "overruns." Probably 2,000 bushels a year have been thus converted to the use of persons to whom it did not in the slightest degree belong. Elevator men fancy that this practice has not been confined alone to the Richmond, but has extended to every elevator in the city. Emslie has paid over to the management of the elevator some \$1,600, the proceeds of his sales. He, it is said, received two-thirds of the profits on what was sold in this way, and the others the balance. There is no telling as yet to what extent grain has thus been abstracted. The only way that can be learned is by cleaning out the elevator, balancing the books, and obtaining the difference between the amount on hand and the amount called for by the books. It is understood that besides the criminal indictments against the persons named civil suits will also be brought. The indicted men urge as a defense that the "overruns" belong to no one, and that the employees of the elevator have just as much right to them as any one. But when a shortage occurs the elevator has to stand it, and it would, therefore, seem only just that "overruns" should be credited to the elevator to offset shortages.

In regard to this matter the *Market Report*, of Toledo, says: "The Buffalo Board of Trade weighman has for some years published statements of shortage of grain vessels from Toledo, Chicago and Duluth, seriously affecting the standing of the various elevators shipping from those points. Notably a vessel's shortage from Sarnia where the question of the shortage exceeded 500 bushels was carried to the courts, and where it was held that the vessel could only be made responsible for the amount of grain she actually took on board and delivered at Buffalo.

Now it appears from an announcement in the Buffalo papers that a continued system of robbery at the grain elevators at Buffalo has been in progress for a series of years and the shortage of that vessel, and presumably that of all other vessels, was stolen by the employees of the Buffalo elevators, through a systematic collusion between weighmen and some members of the Buffalo Board of Trade. The robbers claim that they were only disposing of the overrun of the elevators, but fail to state to the public that the weighman first stole the amount by dishonest and fraudulent weight taken from the vessels, and shielded themselves by charging that the elevators at Toledo, Chicago and Duluth were the thieves instead of the honest Buffalo weighmen. The startling statement of unearthed robbery at the Buffalo elevators seriously reflects upon the yearly statement of the Buffalo Board of Trade weighman, and in justice to the Western elevators he should at once issue an extra circular withdrawing all direct or implied charges against the elevator weights of Chicago, Toledo and Duluth. We hope that the guilty grain thieves of Buffalo may be brought speedily to justice, and in future we shall have honest weights of all grain cargoes at Buffalo."

Mr. Junius S. Smith, the weighmaster of the Buffalo Exchange, has published an open letter in reply to the above from which we extract the following:

"First. No individual cases of shortage or of claims against or settlements with elevators, either at Buffalo or other ports, are ever published by me or with my sanction, and the Sarnia (Port Huron) shortage case named by you was not weighed under my supervision. I had no more to do with it than yourself, although I have not the slightest doubt that the work was correctly done here.

"You may 'but fail to state to the public that the weighman first stole the amount by dishonest and fraudulent weight taken from the vessels,' etc. At the elevator where these things are reported to have occurred—as well as in the other houses—the grain from the vessel can not reach the elevator bins until after passing through the weighing hopper. There is no escape from that fact. Whatever may be done with the grain afterward we know that it is first weighed. You say 'fraudulently.' I have personally and repeatedly tested those scales with 6,000 of standard weights, and do not guess at or assume their accuracy, but know it; and the results of our work there show it, as assuming that Toledo and other elevators gave the vessels full weight and that there was no waste or actual loss, still the average shortage there is less than one-third of a bushel per 1,000, and it was still less last year. Facts, my friends, are stubborn things.

"Now about Toledo. I have never published any details or claims or adjustments, believing, and I still believe it, that in few, if any, cases there is intentional wrong, and that I can best deal with the principals, who only want what is right; but as you, as secretary of the Toledo Produce Exchange, have made the charge, I reply that some-years ago my records showed a probability of a serious wrong at one of the large elevators at Toledo. It was under the care of a thoroughly honest man; one whose integrity was and is unquestioned, and yet when I went there and made the proper examination and tests, the cause was found and the Toledo elevator settled the shortages. Again the same thing occurred. I again went to Toledo, made the proper tests, and the Toledo elevator again settled the shortages. There was no dishonesty on the part of the Toledo elevator. It was simply a mistake with no intentional wrong, and so far as they could they made reparation. That is my reply to your call for an extra circular from me so far as Toledo is concerned. How do you like it?

"For Buffalo and the work of the Merchants' Exchange weighmaster, I have simply to say that when a vessel goes to an elevator here her grain does not come in contact with the storage bins until after it is weighed, and the elevator must and does account for the entire amount received. What they do with it after that I do not know. I am not a detective, and this is no part of my business. You have had copies of my reports from year to year, and for the past seven years the average shortage on grain from craft under my supervision has in no year been as high as a peck per 1,000 bushels. It shows excellent work on the part of the Buffalo elevators. It shows careful, thorough, systematic work on my part and by my deputies; and it frequently shows me where to look for a defect either here or at some Western port, but it does not show, and has nothing to do with the disposal of grain after it has been weighed, and a sensible man would at once see that this is entirely a matter with the elevator people and the owner or consignee of the grain."

ELEVATOR AND GRAIN NEWS

Woodruff, Neb., needs a grain elevator.

A 25,000-bushel elevator will be built at Buffalo, Minn.

A 16,000-bushel elevator is being erected at St. Thomas, Dak.

Only 14 cents per bushel is being paid for corn at Ord, Neb.

Alexandria, Dak., shipped nearly 350 cars of grain since Aug. 1.

Gourley & Quafe, grain dealers, of Cornell, Ill., have sold out.

A. J. Hanson, of Kansas City, Mo., has sold his grain business.

E. B. Ecton, a grain dealer of Winchester, Ky., has assigned.

Eddy & Nason, grain and coal, Westboro, Mass., have dissolved.

Frey & Black have started a grain distillery at Bayou Metot, Ark.

Geo. Smiley & Co., grain, etc., of Kalamazoo, Mich., have dissolved.

A large elevator is being built at Corunna, Mich., by the railroad company.

Carl Specht's brewery, at Wilmington, Del., has been sold by the sheriff.

J. S. Baker & Co., commission grain, etc., of Chicago, Ill., have dissolved.

Hubbard, Kinney & Co., grain dealers, of Kansas City, Mo., have dissolved.

Anderson & Gillet, grain and commission, Baltimore, Md., have dissolved.

M. W. Bosworth & Co. have sold their grain business at Binghamton, N. Y.

Cole & Cook are erecting a 150-barrel mill and elevator at Walseley, N. W. T.

Over 100,000 bushels of wheat have been marketed this fall at Crookston, Minn.

A grain elevator is being built at Zimmerman's, Minn., on the new railroad line.

Gilmer & Martin, owning a grain warehouse at Oakdale, Cal., have sold out.

Sixty thousand bushels of flax have been marketed in Yankton, Dak., this fall.

Samuel Robinson succeeds N. J. Stratton & Co., grain dealers, of Gravity, Iowa.

Geo. Y. Worthington & Son, grain dealers, of Baltimore, Md., have dissolved.

Dunlap & Low have just completed an 8,000-bushel elevator at Cumberland, Iowa.

Hansen & Lenchan have just completed a grain warehouse at East Dubuque, Ill.

John Wade, Jr., has been appointed weighmaster of the Chicago Board, temporarily.

James Woods, grain dealer, of Newell, Iowa, is succeeded by Lawton & Woods.

The property of G. T. Morris, elevator owner, at Fenton, Mich., has been attached.

B. A. Myers succeeds Schweizer & Myers in the grain business at Panola Station, Ill.

Tullis & Smith have succeeded W. H. Tullis in the grain business at Girard, Kan.

The new elevator at the mill of the Hudson's Bay Co., Winnipeg, Man., is completed.

Thomas Ostergard & Co., grain and lumber dealers, of Fremont, Neb., have dissolved.

The Reading Brewing Company, of Reading, Pa., will erect a brewery to cost \$14,500.

Mrs. T. B. Parks, of Benson, Ill., has sold her grain business to L. C. Bartlett & Co.

The new elevator of the "Otter Tail Mill," Fergus Falls, Minn., is almost finished.

C. J. Off will rebuild his grain elevator destroyed by fire at Warrensburg, Ill., Oct. 17.

J. McCarthy & Son, brewers, of Prescott, Ont., have been burned out. Partly insured.

At Wauwatosa, Wis., \$150,000 will be spent in erecting brewery buildings for Fred Miller.

H. S. Gilbert & Co., of Wedron, Ill., have been making some repairs on their grain elevator.

Nearly half a million bushels of wheat were handled in one week recently at Kingston, Ont.

The Erie & Huron Railroad Co. will at once erect a 240,000-bushel elevator at Sarnia, Ont.

F. A. Hill & Co., grain and provision commission merchants, of this city, have suspended.

Chas. Kaestner & Co., Chicago, Ill., have furnished one of their 30-inch mills to each the L. M. Rumsey Mfg. Co.,

St. Louis, Mo., and [Sass & Krembs, Racine Junction, Wis.

H. S. Poole & Co., grain and provision commission merchants, of this city, have suspended.

The quantity of wheat available for export in Canada this year is estimated at 5,600,000 bushels.

The grain syndicate at Aurora, Neb., recently organized, will put \$20,000 into corn this season.

The Grand Trunk Railroad Co. are going to build a 58 x 161-foot grain elevator at Port Huron, Ont.

W. T. Crandall is succeeded by W. T. Crandall & Co. in the grain commission business at Picton, Ont.

Stoll, Clay & Co. have recently put considerable new machinery in their distillery at Sandersville, Ky.

Chas. A. Green succeeds Lawrence & Green in the commission, grain, etc., business, at Philadelphia, Pa.

The grain firm of Hamill, Congdon & Co. has been incorporated in this city with a capital stock of \$30,000.

Fuller & Wagner, of Chicago, Ill., are building a large elevator in Defiance, Iowa. The work is well under way.

M. G. Good & Co.'s elevator, at Marengo, Iowa, burned Dec 8 with all its contents. Total loss, \$4,500; insured.

The capacity of the old distillery of Spurk & Francis, Peoria, Ill., is being increased from 3,500 to 5,000 bushels a day.

S. A. Van Horn & Co., grain dealers, of Lawrenceburg, Ind., have been burned out. Loss, \$10,000; insured for \$4,000.

The new "Queen City Elevator," at Buffalo, N. Y., was opened for business Dec. 2. Its capacity is 200,000 bushels.

The "Farmers' Elevator," at Fort Collins, Col., has taken in over 75,000 bushels of wheat of the 1886 crop thus far.

Julius Binz, brewer, of Buffalo, N. Y., is succeeded by the Broadway Maiting and Brewing Company (incorporated).

Carberry, a town in Manitoba, situated 105 miles west of Winnipeg, has no less than five grain elevators and warehouses.

There has been such a blockade of wheat lately in some places in Dakota that grain had to be piled up on the ground.

The Bryant Commission Company (grain and provisions), of this city, have dissolved. Porch, Hoon & Co. succeed.

Cowgill Bros.' elevator, at Cold Springs, Minn., containing 19,000 bushels of wheat, burst the other day. It was overloaded.

The new addition to the elevator of the Minneapolis & Northern Elevator Company, at Sauk Center, Minn., is nearly completed.

D. P. Harris, formerly agent of the Farmers' Elevator, at Barnesville, Dak., has gone to Sabin, to buy wheat for the same company.

Smith & Thompon, of Hastings, Minn., have sold their interest in the elevator firm of Van Inwegen, Smith & Co., of Appleton, Minn.

Mason & Crandall, stock and grain dealers of Tomah, Wis., have dissolved. H. L. Crandall succeeds the firm in the grain business.

J. L. Williams, Pomeroy, Iowa, has purchased a Western Sheller from Chas. Kaestner & Co., 303 to 311 S. Canal St., Chicago, Ill.

Carish & Schwoebel, grain and agricultural implements, Fountain City, Wis., have dissolved partnership. Geo. Schwoebel succeeds.

Barnett & Record, of Minneapolis, Minn., are building a new 20,000-bushel elevator for the St. Anthony Elevator Co., at Princeton, Minn.

J. A. Campbell, of Lincoln, Neb., furnishes the plans and has the contract for building an elevator for Neal Bros., at Lawrence, Neb.

Jacob Ruppert's brewery, corner of Third avenue and Ninety-first street, New York City, was damaged by fire Dec. 6 to the extent of \$20,000.

Three grain buyers in Alexandria have taken in 129,000 bushels of wheat, 23,313 bushels of flax and 5,856 bushels of barley from Aug. 1 to Dec. 5.

E. W. Blatchford & Co., Chicago, Ill., have ordered a 24-inch mill and a bolting chest from Chas. Kaestner & Co., Chicago, Ill.

Geo. W. Grantham & Bro., of Irving, Ill., write us: "We have built an elevator in connection with our saw and grist mill, and have it in running order."

Dick Bros., of Waynesville, Ill., have been supplied with a 16-inch mill and a Western Sheller by Chas. Kaestner & Co., 303 to 311 S. Canal St., Chicago, Ill.

Chas. Kaestner & Co., Chicago, Ill., have furnished a 20-inch mill and a Western Sheller to K. A. Johnson & Bros., of Morrisonville, Wis.

Chas. Kaestner & Co., Chicago, Ill., report the sale of one 16-inch mill, a cornmeal bolt, and general machinery to John Inglis, Atkinson, Kan.

The 200,000-bushel addition to the Pillsbury elevator, at Minneapolis, Minn., is about completed. The addition makes the total capacity of the elevator 650,000 bushels.

The Lake Superior Elevator Company, Duluth, Minn., will soon begin work on a new 1,500,000-bushel elevator, which is to be ready to receive grain by July 1, 1887. It

will be located just north of Elevator "E." A consort of the same capacity will be built later and will be ready next fall.

Bert Dewell is moving his elevator from Hubbell, Neb., to Haddam, Kan., and will remodel and improve the same. J. A. Campbell, of Lincoln, Neb., has the contract.

Edward Spellman has been awarded the contract for building the Great Eastern Distillery, at Peoria, Ill., referred to in our last issue. Work will be commenced at once.

The Central Elevator Company, of this city, has been incorporated with a capital stock of \$100,000. The incorporators are J. C. Welling, J. C. Russ and E. R. Woodlee.

The Union Improvement and Elevator Co. is about to build a new 1,500,000-bushel elevator at Duluth, Minn., which is to be completed by next fall. It will cost about \$350,000.

R. C. Burdick, chief grain inspector for the state of Minnesota, has resigned this office to accept the position of manager of the Great Northern Elevator, at West Superior, Wis.

Albert A. Cross, for many years employed in Milwaukee elevators, has taken the position of foreman in the elevator of the Great Northern Elevator Co., at West Superior, Wis.

Gugg & Keyser are moving their elevator from Red Cloud, Neb., to Lawrence, same state; they will remodel and enlarge the same. J. A. Campbell, of Lincoln, Neb., has the contract.

Among the late sales of Chas. Kaestner & Co., 303 to 311 S. Canal St., Chicago, Ill., are a 24-inch mill, shafting, pulleys, hangers, and belting to J. I. Townsend, of Buckingham, Ill.

George S. Barnes, of Duluth, Minn., will not organize a new elevator company, as has been published, but will take an active part in the management of the Northern Pacific Company.

Over 9,000,000 bushels of grain have so far this season passed over the Northern & Northwestern Railroad in Canada, the greater bulk being through shipments from Chicago and Duluth.

Samuel K. Nester, a wealthy brewer, of Geneva, N. Y., was robbed of between \$4,000 and \$5,000, which he had placed under his pillow in a New York Central sleeping car on the night of Dec. 8.

The people of Parsons, Kan., are complaining that corn at that point is selling for only 28 cents per bushel, while in Mound Valley and other neighboring places it is worth from 35 to 46 cents a bushel.

Farmers of Burt county, Neb., have formed an organization for the purpose of building grain warehouses of their own. The required capital has nearly been subscribed, and work is to begin at an early day.

At Angus, Minn., a switch spout of the elevator was knocked off by a freight train loaded with lumber, and before the damage could be repaired 2,800 bushels of wheat ran out and spread itself over the ground.

Chas. Kaestner & Co., Chicago, Ill., have lately sold a No. 4 Morgan Horizontal Oat Scourer to Douglas & Stuart, of this city, and a lot of elevator machinery to E. F. Smith, of Holstein, Iowa.

The Van Dusen Elevator Co. in the spring will erect a second annex to Elevator "D," at Minneapolis, Minn., which is to have a capacity of 750,000 bushels. This will give the company a storage capacity in Minneapolis of 1,750,000 bushels.

A report from St. Thomas, Dak., dated Dec. 1, says: The wheat blockade at St. Thomas has caused indignation and consternation among the citizens. Business is at a standstill, and bankruptcy is staring merchants and farmers in the face.

A stock company has just been formed by leading business and mercantile men at Black River Falls, Wis., with a capital stock of \$20,000, the object being to build a large elevator at that point, to make the place a central market for the farmers.

The quantities of wheat left in store at the close of navigation at the principal shipping points were about as follows: Chicago, 10,000,000 bushels; Duluth, 8,500,000 bushels; Toledo, 4,000,000 bushels; Milwaukee, 3,000,000 bushels; Detroit, 1,500,000, and St. Louis, 4,500,000, an aggregate of 31,500,000 bushels.

Gass & Telles, Davis, Mich.; C. E. Brooks, Marshall, Mich.; Carl Gerlach, Red Lake Falls, Minn.; W. S. Endslo, Blain, Pa., and C. W. Hart, Newton, Iowa, have each purchased a Kaestner Mill of Chas. Kaestner & Co., 303 to 311 S. Canal St., Chicago, Ill.

The damaged wheat stored in the elevators burned at Duluth, Minn., on Nov. 27, was sold on the Duluth Board of Trade Dec. 3 to Dunn & Thompson, of that city, for an even \$100,000, the bids being \$25,000 for the grain in Elevator "A" and \$75,000 for that in Elevator "Q."

The Great Northern Elevator Company, of St. Paul, Minn., has filed articles of incorporation with the secretary of state. The capital stock is \$300,000. The incorporators are Howard James, Fred G. B. Woodruff, Charles B. Vale, of St. Paul; Adolphus H. Bode, of Minneapolis, and Frank L. Moffit, of St. Anthony Park.

The Great Northern Elevator Company commenced business at West Superior, Wis., on Dec. 3. The company has for its president R. C. Burdick, lately chief grain inspector for Minnesota, and is controlled by Messrs. C. A. Pillsbury, W. H. Dunwoody, F. H. Peavey, of Minne-

apolis; G. W. Van Dusen, of Rochester; D. C. Shepard and H. C. Upham, of St. Paul. Their capacity at present is 1,250,000 bushels, which will be increased as business warrants.

T. B. Sage, of Kansas City, Mo., manager of the company which is building a new flouring mill at St. Cloud, Minn., says they will erect a 30,000-bushel elevator at that point, and put up a number of small grain houses at stations along the various branches of the Manitoba Road centering in St. Cloud.

Chas. Kaestner & Co., 303 to 311 S. Canal St., Chicago, Ill., have supplied a 16-inch mill to each A. C. Hiliker, Bay City, Mich.; L. S. Harmon & Peck, Richmond Center, Ohio; the Eclipse Wind Engine Company, Beloit, Wis.; Cary, Ogden & Parker, Chicago, Ill.; Edward Lamont, Winfield, Kan., and S. P. Morgan, Latham, Kan.

The St. Anthony Elevator Co. has commenced work on a new 750,000-bushel annex in East Minneapolis, Minn., which is to be completed by Jan. 13. Early in the spring the third regular house, with a storage capacity of 1,100,000 bushels, will be commenced, giving the company a total storage capacity in the city named of 3,500,000 bushels.

Says the St. Marys (Kan.) *Express*: The St. Marys elevators have been paying 25 cents a bushel for corn, this price being just 4 cents a bushel less than Kansas City prices. If the elevators were to ship the corn to that market, they would lose money; but the home demand has been of such a nature that there has been no occasion to ship to Kansas City.

The following parties have each bought a 20-inch Kaestner Mill of Chas. Kaestner & Co., 303 to 311 S. Canal St., Chicago, Ill.: W. H. Wallace, Humboldt, Ill.; K. Schreier, Sheboygan, Wis.; the Necedah Mill Company, Necedah, Wis.; L. G. Phelps & Co., Watcomb, W. T.; H. J. Dixon, Chetek, Wis., and O. L. Packard, Milwaukee, Wis.

The "Great Northern Elevator," at West Superior, Wis., Dec. 3 was declared "regular" by the Duluth Board of Trade, provided the Great Northern Elevator Company complied with certain conditions enjoined by the board in the interest of the patrons of the elevator. It was supposed the company would submit to the conditions imposed. Wheat was begun to be put in the elevator at once, which increases the capacity of Duluth 1,750,000 bushels.

The large grain elevator of the Western Maryland Railroad, at Green Village, Pa., operated by Oliver Chambers, of Chambersburg, was totally destroyed by fire Dec. 11. Mr. Chambers, who slept in the building, was horribly burned in his efforts to escape. The contents consisted of about 25,000 bushels of grain and feed, upon which there was an insurance of \$3,900. The building was insured for \$4,500. The fire was supposed to be the act of an incendiary.

Duluth *Daily Trade* says: "The fire will hurry up the building of more elevators here. The new Union Improvement house, with a capacity of 1,500,000, is to be pushed forward at once, but cannot be ready for use before next fall. The new 1,750,000 house of the Lake Superior Company will also be rushed forward, as soon as the location is decided upon. It is said that 10,000,000 bushels of wheat would come here this winter if there were elevator room. Perhaps it would be a good idea to put up more sheds."

At Duluth, under the rules of the Board of Trade, buyers of grain are, until Dec. 1, entitled to receipts having ten days to run on the regular summer storage rates. As far as deliveries on contracts are concerned, no important change will take place until Dec. 1. On and after that date, grain delivered on contracts must be on the basis of winter storage, and can be held without storage until April 30 for delivery on contracts or sales here, and can be delivered between May 1 and May 5, inclusive, by sellers deducting 2½ cents storage.

A dispatch from Coldwater, Mich., says: There is great excitement here among speculators. A bucket shop was run here by J. Murphy & Co., of Chicago. Murphy has been here a couple of days, but left at noon, carrying away about \$25,000. Before leaving his patrons made it very hot for him, arresting him for trespass. He escaped from his hotel, but was overhauled at the depot. The boys allege that he gave false quotations, and refused to close deals at request. Ten days ago the town was \$30,000 ahead, but about \$10,000 put up on remargins yesterday, and \$15,000 to-day, were gobbled by Murphy.

The following crop summary appears in this week's issue of the *Chicago Farmers' Review*: "The reports from the winter-wheat growing sections of Ohio, Michigan, Indiana, Illinois, Missouri, and Kansas continue to be generally favorable for the fall-sown grain. Three counties in Kansas report the plant as looking poorly, and in St. Joseph county, Mich., the presence of the fly is noted, with the statement that many of the fields are looking poorly. From Illinois and Indiana, and especially from Missouri, the reports thus far are of a very flattering character. The movement of corn is reported to be very slow in the Northwest. This is especially true of Iowa, Nebraska, and Wisconsin, with only a moderate movement in Minnesota and Dakota. In McHenry, Mercer, and Manroe counties of Illinois it is reported that there is no corn to ship. A similar report is made as to Decatur, Jefferson, Keokuk, Taylor, and Kossuth counties in Iowa, and in some instances corn is being imported. The movement is reported as only moderate in Indiana, Ohio and Michigan. The current of all the reports from Illinois, Kansas, Missouri, Iowa, and Wisconsin is that the stacks of corn are unusually light.



The Welland Canal closed for the season on Dec. 1.

The Delaware & Raritan Canal will be closed Dec. 20. Navigation on lake Erie practically closed before the first of this month.

During the past season the New York canals were open for navigation 215 days. The tonnage carried during this period was about 5,250,000 tons, against 4,732,000 tons in 1885. The cost of maintaining the canals will be about the same as that of 1885, \$700,000. It is believed that the Legislature, in viewing this expenditure, will be called upon to ask the United States Government for aid in repairing and maintaining the canals, on the ground that they are a benefit to parties in other states even more than to parties in the state of New York.

Several of the locks on the Erie Canal are to be doubled in size before the next season of navigation begins. An effort will be made to induce the legislature to authorize the construction of double locks in place of all those of the old size. This would greatly increase the effectiveness of the canal; but to have the improvement benefit the public, the elevator companies in Buffalo need to be placed under state supervision and their charges fixed by law. Under the present system, much of the advantages which the state has given the boatmen in abolishing tolls has been grasped by the elevator monopolies.

Among the projects which deserve the undivided support of this nation is unquestionably the Harlem River Ship Canal, because it would be the means of accelerating considerably the conveyance of the products of this country to foreign markets. The advocates of this canal assert that its construction would enable Chicago exporters to send their meats, grain, etc., to Liverpool in eight days, while personal transit from any of the Chicago depots to the city named would be accomplished in six days. Over 150 business men of Chicago are said to have signed a memorial asking Congress to do something in the matter. Like memorials have been or are to be sent to Congress from every important city in the West and South. The improvement of the Harlem River has been urged upon Congress ever since 1874. The Forty-fifth Congress appropriated \$400,000 for surveying the work to be done; but work in that direction has been obstructed by parties of "influence," and nothing has been done so far. The cost of building the canal is estimated at \$3,000,000, which is, indeed, extremely slight in comparison with the advantages almost the whole nation would undoubtedly derive from it.

The railroad can not compete with the waterways. The fact is just as patent to-day as at any time since the rail and waterways became rivals. The railroads have never seriously encroached upon the business of the waterways, except when their freight rates were demoralized and they were doing business below cost. The large business of the canals through the summer and the small business of the railroads were due to the attempts of the latter to maintain living rates. Whether a small quantity of freight with high rates is preferable to a large business with small rates, the trunk line roads have probably demonstrated to their satisfaction during the past season. Certain it is the canals prospered and did the great bulk of the carrying trade. When the coming season of canal-lake navigation shall be close at hand, the railroads will again change their rates. It will be reduction, however. They can not maintain the higher rates, or their through freight business will be even smaller than it has been during the season just closed. What do the people deduce from this marking up and marking down of freight rates at the close and the opening of canal navigation? What would the rail rates be without old Erie?—*Albany Express*.

The Mississippi and Michigan Canal Commission, which was organized for the purpose of agitating the passage in Congress of the Hennepin Canal Bill, held its annual meeting recently in this city, President Utley in the chair. Among those present were Ex-Governor Bross, Congressman Benton J. Hall, of Burlington, Iowa; Payson, of the Tenth Illinois; Geer, of Iowa; Shaw, of Dixon; Brown, of Morris; State Senator S. B. Ray, of Morris; Judge Murphy, of Davenport; Congressman Henderson, of Iowa; Murry Nelson, M. Rosenfield, of Olean. Calling the meeting to order, President Utley said he believed the Hennepin Canal Bill one of the most important before Congress. Ex-Governor Bross argued upon the necessity of constructing the canal without delay, as large interests were at stake. Judge Murphy, one of the champions of the bill, was very much disappointed with the lack of interest shown by the people of Chicago; no point on the canal would be so much benefited by it as this city. Four years ago the people of this state donated to the General Government the old Michigan and Illinois Canal, with the understanding that the government should build the Hennepin Canal. The contract, if such it could be called, expire in 1887, and hence the importance of action at the coming session of Congress. Water transportation was 50 per cent. cheaper than by railroad. "Chicago should wake up once to a realization of its selfish interests and give them aid in this matter." Powderly and the Knights of Labor had sent in 500 memorials in favor of the canal. Congressman Payson reaffirmed his allegiance to the canal

bill, and averred that if anything could be done for the bill in the next five years it must be done at this session of Congress. The Peoria district, which is tributary to the Hennepin Canal, paid as much, if not more, money into the treasury than any district in the Union. Congressman Hall, of Iowa, was of the opinion that the only hope for the bill was as an independent measure, and every influence should be brought to bear in Congress to pass it as such. He was in favor of having the business men of Chicago send a delegation to Washington to aid in the passage of the bill, and there was little doubt it would become a law. Another year would change the status of the bill, and what might be easily accomplished now would be very difficult next year. This was the critical time in the history of the bill. If the bill could be got before the House, its passage was an accomplished fact. Everything depended on the report of the Board of Engineers. He was almost satisfied the report of the Board of Engineers would be favorable. Murry Nelson said the majority of the people of Chicago were not in favor of the bill—they were not interested in it. The result of the measure would be to put a lot of small towns like Peoria, Davenport, Keokuk, and others, on a par with Chicago. Some people might think that was small policy, and that Chicago's citizens were small-minded. But the fact of the matter was that Chicago was a railroad town, and therefore was opposed to water ways. The measure, however, was a good one, and ought to be pushed to a successful issue. On motion of ex-Governor Bross, Murry Nelson and E. Nelson Blake were appointed to go to Washington to assist in having the measure passed, and to them were added ex-Governor Bross, C. B. Farwell, and State Senator Ray. The old officers were re-elected for the ensuing year as follows: President, Colonel Utley; Treasurer, Murry Nelson; Secretary, Dave Littler; Chairman of Executive, ex-Governor Bross. The commission then adjourned, to meet again at the call of the president.



Russian and Indian exports of wheat continue at low ebb at current prices. The advance in the price of silver has the effect to increase the value of American wheat.

Boumphries & Co., a large grain supply firm at Liverpool, has failed. It was short California wheat. The firm was at one time one of the largest in the trade. It was, however, compelled to liquidate a few years ago. They say now that they expect aid and to go on.

During the ten months ended Oct. 31 only 50,000 quarters of wheat have been exported from Australasian ports, against 1,057,000 quarters during the same period last year. The outlook for the new crop in that part of the world is, however, more favorable than last year.

Mr. C. B. Macdonald, of this city, says in regard to the grain trade abroad: "Three years ago last summer the trade in Europe was looked upon as one of the wealthiest and healthiest. Numberless firms were accredited as being worth millions, and it was almost as difficult to approach the heads of these houses as to gain an interview with the leading bankers. To-day I know of but one or two firms in the United Kingdom or on the continent of Europe who confine themselves to the grain business that are pronounced by the banking element as being worth \$1,000,000. The losses abroad have been fabulous. One house alone, who in 1878-79 was quoted worth \$5,000,000, lately compromised at 25 per cent."

Shipments from India have always increased or decreased with the rise and fall of exchange. India first attracted attention in Europe as a wheat-producing country in 1877, after the first great fall in the price of silver to 46½ pence in 1876, owing to the action of the German government selling their demonetized silver. When the market recovered Indian shipments fell off, and did not again become important until 1881, when silver sagged lower, and America attempted to force Europe to buy her wheat at a price dictated by Chicago and New York speculators. Since then Indian shipments have become more and more important, and will reach this year a maximum exportation of nearly 50,000,000 bushels, making India the second exporting country of the world.

The wheat harvest in France this year has, it is estimated, yielded 95,470,000 hectolitres of wheat, which is over 6,000,000 hectolitres less than last year's crop. In only one department has the wheat been very good, in 17 it was good, in 51 fair, in 11 mediocre, and in 5 positively bad. The average yield per hectare—two and a half acres—was about 34 bushels. The weight has decreased from 5 to 8 per cent., as compared with last year. As the ordinary consumption of wheat in France is 118,000,000 hectolitres per year, there is a deficit in home production of 23,000,000, which quantity must be imported. The reason assigned for the falling off of the crop in France during the last year or two is that less ground is sown with wheat now and more with oats. The weather is made responsible for the bad quality.—*Pall Mall Gazette*.

The grain warehouse at Two Rivers, Wis., owned by Krull & Volger, commission merchants of Chicago and Milwaukee, was totally destroyed by fire this morning. The loss is about \$7,000; covered by insurance. The cause of the fire is supposed to have been incendiary.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., DEC. 15, 1886.

SHORTAGE AND STEALAGE.

For a long while Buffalo has discredited the elevator weights of Duluth, Chicago, Milwaukee, Toledo and other points of lake shipment, by detecting, or claiming to detect, shortages. It may be remarked here that the vesselmen, those most interested, have not, by any means, believed that the western elevators were giving short weights; but have charged repeatedly that the trouble was in Buffalo. And now comes the news that systematic wheat-stealing has been carried on in the Buffalo elevators. The connection between the shortage and the stealage is simply this: that confessedly the wheat thieves have been stealing the *overrun* of the Buffalo elevators. It will require a good deal of argument to convince the public, especially the vesselmen, that if the elevators of Buffalo have overruns amounting to thousands of bushels, the vessels had the shortage claimed. The Merchants' Exchange of Buffalo owes it to itself to probe this matter to the bottom. But perhaps that is asking too much of a body which still numbers Lorenzo Dimick among its honored members.

THE INTER-STATE COMMERCE BILL.

There is now a fair prospect that before many days the country will have a law regulating commerce between the states. It will be remembered that at the last session the Senate passed the Culom Bill and the House the Reagan Bill. The conference committee has finally agreed upon a modified bill which is substantially the Culom Bill with an engrafting of Reagan's ideas. Pooling by the railroads is absolutely prohibited. The roads must publish their rates and post them in every depot. On the vexed and much-debated question of the long and short haul a compromise has been agreed upon. The House bill absolutely prohibited a greater charge for a shorter than for a longer distance which includes the shorter upon any one railroad. The provision in the Senate bill prohibited a greater charge for a shorter than for a longer distance under substantially similar circumstances and conditions over the same line, in the same direction, and from the same original point of departure, or to the same point of arrival. It also authorized the commission to make exceptions to this general rule in special

cases in which it seemed proper. The substitute section agreed to by the conferees makes it unlawful for any railroad to charge more for the transportation of passengers or of like kinds of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line and in the same direction, the shorter being included within the longer distance, with the proviso that in special cases upon application and after investigation the commission may prescribe the extent to which such railroad shall be relieved from the operation of this section.

Candid, fair-minded men admit that the new bill is worth trying. It is not so radical as to breed mischief, and is a piece of legislation which the public is entitled to.

UNJUST DISCRIMINATION.

An Illinois subscriber asks us the following question, to which he desires an answer:

Suppose a shipper is located between two given points on a system of railroad, controlled by one company in this state (Illinois), and said shipper can establish the fact that said railroad is hauling grain for one-half or less per 100 pounds than they do for the shipper located at the point half way or thereabouts. Can said shipper compel the railroad to do the same service for the same money? If so, in what way should he proceed?

If we understand our correspondent's statement—that the railroad charges more for the short than the long haul—the railroad is violating the laws of the state, providing that the charges are for freight *going in the same direction*. The Legislature in 1873 passed an act "to prevent extortion and unjust discrimination," and a reference to it will show that just such cases are covered by that act. Our correspondent should lay the case before the Railroad and Warehouse Commissioners. He will not be able to make the railroad do the same service for him that it does for the other fellow, but he can stop the discrimination if he can prove the facts alleged.

THE MINNEAPOLIS MILLERS' UNION.

The Minneapolis Millers' Union, which, as a kind of experiment, was substituted Sept. 1 for the Millers' Association, has not survived the date originally fixed to terminate the trial. It quietly went out of existence on Dec. 1. The reason for allowing it to collapse, it is generally understood, is that there was no longer any use for such an organization. It has been claimed that the defunct Millers' Association, which was formed at a time when the districts naturally tributary to Minneapolis were not able to furnish sufficient wheat supplies for the fast multiplying grinding capacity of that city, was a monopoly, and as such harmful to the grain interests of the Northwest. Members of the Association hold a different view. While admitting that they actually controlled the price of wheat in the Northwest, they claim that they did control it because they were paying more for the grain than it was worth when shipped abroad. The purpose of the Association was not to lower prices, but simply to get all the wheat they wanted, a large portion of which would have gone to other points if there had been no organization to control the market. However, within the last year or two, with the abundant crops in the hard winter wheat districts, the Minneapolis millers could and did get more wheat than they wanted. Last year they kept the price of wheat up to a point about fifteen cents a bushel above what it was worth to ship to Europe until about Dec. 1, and then, when the mills had their elevators all full and had all the wheat on their hands they could comfortably hold, they found there was still an immense amount back in the hands of the farmers. The load being a larger one than they could undertake to carry, they had to "get out from under," and, as a result, down went the price of wheat, and flour was not slow in following it. This, the millers say, was the actual reason why the Association was allowed to go out of use at the end of the milling year. There is some very strong argument in these statements,

and there is no question that if wheat raising continues in the Northwest on the present scale, the policy of the millers to buy their supplies individually will be more advantageous to them than purchasing the same as an organization. Whether it will be as profitable to the seller of the wheat remains to be seen. But it may be added that the millers still retain a nucleus for their organization.

THE HENNEPIN CANAL AND ITS ENEMIES.

The enemies of the Hennepin Canal improvement have taken fresh courage from the report of the Comstock Board of Army Engineers, which was made public on the 10th inst. Not that this report condemned its measure, by any means; on the contrary, it stated that it was a work which the government should undertake. But the Hennepin Canal as recommended by the Board is part of a different system from that contemplated by the people of this state. For instance, the Board expressly counsels the non-acceptance by the United States of the Illinois & Michigan Canal. The Board recommends the Marais d'Osier route for the Hennepin, and would use the Illinois River above La Salle for making water connection with Chicago, instead of the lower stretch of the Illinois & Michigan Canal. All through the report "damns with faint praise," and, as a telegram from Washington says: "The pith of the whole matter is this: The report of the Comstock Board furnishes ample grounds on which the opponents of Hennepin in Congress can plant themselves. With it to fall back on, they will be likely to have little trouble in defeating action this session." We fear this is only too true, especially as many of the enemies of this improvement are numbered right here in Chicago.

THE BUCKET SHOP CONTROVERSY.

We mentioned last month the war of the Chicago Board of Trade on the bucket shops, and commended the effort. The Cincinnati *Price Current*, an able paper in its field, in mentioning the matter editorially, took occasion to reprobate the Chicago Board for some alleged practices of its members, which the *Price Current* thought were no better than bucket shop methods. The *Price Current* can well flatter itself that few papers could raise the rumpus which its editorial caused on the Chicago Board. In fact, for a while official action was thought of. The substance of the *Price Current's* charge was that large buying orders, sent to Chicago brokers, large enough to affect the market, have been executed on the Board in such a way as not to injure the short sellers; in other words, that the "bear" clique have everything manipulated in their favor.

Of course there are bad men on the Chicago Board; it would be impossible to group 1,800 business men in one body, all of whom should be of spotless integrity. But the Chicago Board has of late certainly shown a disposition to discipline the unworthy. It has put a stop to trading in privileges, and in its attempt to down the bucket shops it should have the support of the public, including the *Price Current*. The Board ought not to be condemned in its good work for the alleged evil practices of some of its members.

THERE has been a lull for sometime past in the fight of the grain men for lower elevator charges in this city. But now, it seems the war on the elevator men is to be renewed with increased vigor. This, at least, must be inferred from the attitude the Board of Trade is going to take in the coming session of the Legislature. It is understood that they will on this special occasion combine with their bitter enemy, the United Labor Party, and try what they can do to persuade the Legislature to pass some measure cutting down the elevator charges. What a Legislature essentially composed of the farmer element will do in the matter can not be foretold; but judging from former legislation the impression is, to use the words of a Board of Trade man, that "it will tear things wide open."

Editorial Mention.

GRAIN rates from Chicago to New York City are now 30 cents per hundred.

BUCKET shops are said to be closing up in New York City for want of business.

BOHEMIAN oats swindlers are again at work in Michigan, fleecing unsuspecting farmers.

DULUTH, like Chicago, gathers courage and enterprise from disaster. She will build new elevators and more of them.

THE trouble in Milwaukee over the wheat in Angus Smith's elevators has never been completely settled, and is breeding much ill-feeling.

THE Fishkill Landing Machine Co., of Fishkill-on-the-Hudson, N. Y., have issued an elegant catalogue devoted to the Fishkill Corliss Engine.

THE AMERICAN ELEVATOR AND GRAIN TRADE "is too good and cheap to do without it"—is the opinion of Messrs. Delp & Groff, of Indianapolis, Ind.

THE Erie Canal the past season took 43,251,905 bushels of wheat into New York City, against 29,492,643 bushels last year, an increase of over 46 per cent.

"I ESTEEM the AMERICAN ELEVATOR AND GRAIN TRADE one of the essentials to a successful business man," is what Mr. Walter Brinton, of Christiana, Pa., writes in renewing his subscription.

SOME of the railroad magnates are opposed to the advance in rates which takes place on Dec. 20. They think that if a 25-cent rate cannot be maintained, it is useless to attempt to maintain a 30-cent rate.

IT is said that timothy seed is another product which Eastern farmers can no longer raise profitably. Western farming on a large scale, and the self-binding harvester, is what has wrought the change.

AT a meeting in St. Louis, Mo., on Nov. 30, of representatives of roads centering at Ottumwa, Iowa, the Ottumwa pool was reorganized, and rates on grain from Iowa points were reduced 1 1-2 cents.

THE ending of "Fund W" seems to have been remembered to some purpose. A similar scheme, dressed out in a seductive circular and issued from this city, did not meet with a large and enthusiastic response from the lambs in the country.

THE Roller Chain Belting Co., of Columbus, Ohio, have issued a complete illustrated catalogue of their roller chain belting and its appliances, which they will be pleased to send on application to grain men, mill owners, brewers, and all interested parties.

DULUTH thinks that the building of the Duluth, South Shore & Atlantic Railroad will be her "Declaration of Independence." She says she won't care a "continental" what rates other places get on wheat to Chicago, for she will not want to ship any this way.

SALES on "private terms" are still quite common in some parts of the East or South, and a farmer writes to a Richmond paper complaining that while the market reports always give the price paid for ordinary grain, the sales of the best grades are always reported as "on private terms."

He thinks there is a manifest injustice to both farmers and country shippers in such a practice, and he is right.

WE have received an illustrated catalogue of the Lotz Patent Grain Shoveling Machine. This is one of the best-known of this class of machines and is in satisfactory use in a number of elevators and mills. It is made by the Howard Iron Works, of Buffalo, N. Y.

GRAIN men will notice the card in this issue of Messrs. Seaton & Lea, of Atchison, Kan., advertising their "Kansas Corn Sheller" and "Kansas Cleaner." They state in part the characteristics of their machines and the claims made for their work. Interested parties can obtain full particulars by addressing Messrs. Seaton & Lea as above.

OUR contemporary, *Daily Business*, thinks that good might be accomplished if the methods and working of the bucket shops were fully understood by the public. We doubt it. The dupes who gamble in these places learn in only one way—by experience; and the crop of blamed idjits is always large and unflinching, even without fertilizing.

THE collapse of "Plunger" Hill in this city showed that this phenomenal young man had sold about 50,000,000 bushels of wheat in sixty days. If he had only been allowed time enough he would have sold the whole crop. His methods of speculating that gained him his name paralyzed even the largest dealers; but in turn he fell a victim to his own methods.

IT is reliably stated that on one of the largest farms in the Red River Valley the wheat raised this year cost but 28 cents per bushel for seed and labor. What the wheat when sold brings above this figure, of course, is not all profit, as interest on the investment, wear and tear of machinery and the personal services of the owners are not included in the above estimate.

EDW. P. ALLIS & Co., of Milwaukee, Wis., last year issued one of the handsomest calendars we ever saw. They are now preparing one for 1887, which will eclipse that of last year. It is handsomely lithographed in nine colors and gold, and its size will be 20x30 inches. They will take pleasure in furnishing a copy to every reader of the AMERICAN ELEVATOR AND GRAIN TRADE who will apply to them for one.

FOR SALE.—The Marshall Elevator, of 10,000 bushels' capacity, on Cairo, Vincennes & Chicago R. R., with side-track and track scales complete; all in good running order. Situated in a county where wheat, corn, and oats are produced in abundance. Only elevator in a city of about 2,000 inhabitants. Good facilities for shipping North, South, East, and West. For particulars address JOHN MORTON, Marshall, Ill.

IT is with regret we record the death of Chas. H. Lucas, a prominent member of the Cincinnati (Ohio) Chamber of Commerce. He came to that city in 1882, from Danville, Ky., and engaged in the grain business, becoming a member of the firm of McKeehan & Lucas. His fair and square business methods won him the esteem of his fellow members of the Chamber of Commerce, in which organization he was frequently called to serve on important committees.

FIFTY prominent grain dealers and carriers of New York, Chicago, Baltimore and other points have organized to carry their own insurance on grain in registered warehouses. The association is called the "Grain Dealers' Lloyds." Among those interested in the scheme are such merchants and firms as H. O. Armour & Co., David Dows, Jr., Field, Lindley & Co., Milmine, Bodman & Co., R. H. Fleming, F. G. Bigelow, Alexander Brown, J. O. Norris, I. M. Parr & Sons, Henry A. Parr, E. A. Driver, C. B. Eggleston, C. A. Mair, W. G. McCormick, J. H. Norton, I. P. Rumsey, A. C.

Buell, Geo. Spencer & Co. and E. W. Eames. The company's headquarters will be in New York. It will confine its operations to grain.

HON. WILLIAM BROSS, of this city, an authority on the Hennepin Canal, when interviewed the other day on the subject, said that it was the view of the promoters of the scheme to deepen and widen the Illinois and Michigan Canal, utilizing the Illinois and Des Plaines Rivers up as far as Joliet, or perhaps even this side of Lockport. The main object was to bring commerce from the Mississippi direct into the heart of the city, and from there to the lakes, through the Chicago River.

THE annual report of the Mississippi River Commission for the fiscal year ended June 30, 1886, shows that owing to the lack of funds very little construction work was done during the year. The improvements were confined to smaller repairs and minor work of shore protection. For the ensuing year the report asks for a total appropriation of \$6,295,600. The Missouri River Commission has also transmitted its report to Congress. The minimum appropriation recommended for this river for next year is \$250,000.

OPTIMISTS who were interested in the trade last spring placed the wheat crop of California at 2,000,000 tons, and even higher. None of the "bears" would estimate it at less than 1,200,000 tons, which would afford about 900,000 tons for export, not counting the stock carried over, or outside receipts. Last month several California importers and dealers made careful individual researches in regard to the amount of wheat on hand in California. Their reports varied from 300,000 to 525,000 tons as the exportable surplus in the State on November 9. The first figure would indicate but a little larger surplus than that from the 1885 crop, which was a pronounced failure. As this year's crop was an excellent one, it is safe to adopt the higher figure as probably very much nearer the mark.

HARD WHEAT FOR CHICAGO.

AT last the Chicago grain men have been aroused to the necessity of taking some decisive steps in regard to the decreasing wheat market in this city. For the last month or so a quiet but active movement has been on foot among leading grain men and others interested in the trade of the city to devise ways and means to regain, if not all, at least part of its former control over the wheat market of the Northwest. The object of this combination, if such it can be called, is to bring to this city part of the No. 1 hard wheat produced in the Northwest, which now goes almost exclusively to Minneapolis and Duluth elevators. The main obstacle in the way of directing the wheat mentioned to Chicago has been the lack of proper grading at this point for that quality of wheat. The secret of the building up of the grain trade at Duluth lies to a considerable degree in the methods of handling and grading the wheat. When delivered at the Duluth elevators it is graded "No. 1 hard, subject to cleaning," while there is no established grade at Chicago in which this wheat could be inspected. On account of a little straw, cockle and dirt, which the Chicago elevators have no machinery for removing, the same kind of wheat which grades No. 1 hard at Duluth (subject to cleaning) has to be graded down to No. 3 here, though its intrinsic value would entitle it to the higher grade.

In order to get out of this dilemma it is now proposed to change the mode of handling and grading of the grain here, and adopt a system similar to the one so successfully carried on in Duluth. With a view to pushing this matter a committee of representative grain and railroad men was recently sent from this city to Duluth to investigate the methods of inspection and cleaning there. The visit has been a perfect success. All of the committee were favorably impressed with the working of the Duluth system, and are of opinion that the adoption of a similar system at Chicago is perfectly feasible under the present

Warehouse Law of Illinois. The only trouble is, there is not a single public elevator at present in Chicago which is provided with the necessary cleaning machinery, and it is believed they are so constructed that the introduction of the same is not practicable.

However, Messrs. W. H. Harper and C. W. Wheeler, it is understood, contemplate the speedy erection of several new elevators, which are to be so constructed as to allow the grain to be handled in the same manner as in Duluth. This would be a very commendable enterprise, and unquestionably a paying one, too. For Chicago Board of Trade men, who are holding considerable quantities of the No. 1 hard wheat at Duluth, would be only too glad to have proper facilities offered them for storing their wheat here. It will not be an easy matter for Chicago to regain her lost prestige in the grain market. But let the good work go on all the same. It will surely meet with a good deal of success.

THE MIDDLE AND WESTERN STATES FREIGHT ASSOCIATION.

Under the above name the "Lake Shore & M. & S. Ry.," the "Michigan Central," "P., Ft. W. & C.," "Chi., St. L. & P.," "C. & M.," "L., N. A. & C.," "C. & E. Ill. R. R.," "N. Y., Chi. & St. Louis," "B. & O. R. R.," "Chi. & G. T. Ry.," and the "C. I. St. Louis & C. Ry." Companies have united and formulated a bill of lading upon which they will all insist after Jan. 1, 1887.

In this bill of lading the companies exempt themselves from all liability for loss or damage occurring on the line of any connecting carrier, if the destruction of the goods is beyond the lines of the company issuing the bill of lading. They also exempt themselves from all liability from any and every other cause that by any possibility can happen to goods in transit.

The second paragraph in the bill of lading reads as follows: "*Neither this company nor any connecting carrier shall be liable for any loss or damage to said property by dangers or accidents incident to railroad transportation or by fires or floods, while at depots, stations, yards, landings, warehouses, or in transit.*"

In other words, no railroad company shall be liable at all unless it can be shown that the goods were destroyed or damaged by its direct negligence, which, when the property may have been injured or lost at a distant point on the road, the shipper can never show, so the carrier is substantially exempted from all probable liability. But to remove even the possibility of being held, it is further provided that "Any claim for a total loss of the property received shall be presented, together with this contract, within ten days from the date hereof (the date of bill of lading), and any claim for a partial loss of such property or damage thereto shall be presented within twenty-four hours after the delivery of the property to the assignee, and if not so presented all claim shall be deemed waived." This proposed bill of lading in every essential particular exempts the railroad companies from the liabilities and obligations imposed upon it by law. In the absence of any contract limiting the liability of the carriers, a common carrier is absolutely for the same delivery within a reasonable time of all property received by it for transportation to the point of destination marked on the goods, whether beyond its own road or not. While the carrier is not bound to accept goods for points beyond its own lines, if it does accept such goods for transportation it is liable for their safe carriage and delivery to the destination. The only way it can avoid liability for failure to deliver the goods received is to show that they were lost or injured by the act of God or the public enemy or some inherent defect in the goods themselves. The undertaking to carry and deliver as imposed by the law is absolute, and the carrier becomes an insurer of the goods while in transit. In the absence of any special contract to the contrary, all a shipper has to show in order to recover the value of goods delivered to the carrier for transportation, and which it has failed to deliver, is the fact of deliv-

ery to carrier and non-delivery by it at destination, and it is for the company to show that the goods were lost by inevitable cause which it could not control. Furthermore, no person is by law obliged to present his claim within twenty-four hours in order to recover damages to his property. The time fixed by law in most instances is two years, but the carriers propose to make a law for themselves, and compel the public to assent to it.

The worst phase of this matter, however, is that the acceptance of such a bill of lading, with knowledge of its contents, is an assent to its terms and creates a binding contract which effectually waives the remedy and rights which the shipper would otherwise have. If he refuses to assent to the contract offered by the company they refuse to carry his goods. True, he has an action against the company for damages for refusing to accept his goods for transportation upon the terms imposed by law, but such action is utterly inadequate, as the shipper must get his goods to his customers or else be driven from business, and the privilege of maintaining an expensive lawsuit does not meet this difficulty, nor, if ever so successful, compensate him for lost business and profits.

The railroads are fully aware of this, and are masters of the situation. To find a remedy entirely adequate to cover this case is difficult; but we suggest that the legislatures of the different states should enact laws, making every provision contained in bills of lading or shipping contracts, which limit the liability imposed upon common carriers by law in the absence of contracts, absolutely void and of no effect.

It would seem as if the present were not the best time for these corporations to make such an exhibition of their power, and furnish such an illustration of their use of it. There has long existed a decided impatience with corporate greed and tyranny; there is now a rapidly growing desire to put an end to it by some means or other, and it is to be feared that they will invite measures and means of redress that may be more radical than effective. Such conduct and wanton insolent recklessness in the use of power creates more socialistic ideas and undermines the respect for property and its rights and value more than all the Mosts, Spies, and Parsons.

THE ST. LOUIS ELEVATORS AND THE MILLERS.

The millers of St. Louis believe they have a grievance against the elevators of that city, and the following address has been sent the elevator owners by the St. Louis Millers' Association:

"The critical condition of the flour milling industry of our city makes it a duty for us to present to you a statement of facts and considerations to which we beg your serious attention. Our interests, though distinct, are yet so intimately connected that we believe that you will acknowledge that your welfare is largely bound up in ours, and that the ruin of flour milling here, in so far as we would like to be one of the important milling centers of the world, would be a fatal blow to your own interests. A few years ago, before the general introduction of roller milling, St. Louis flour enjoyed such prominence as made it relatively independent of the products of other sections, and the millers could afford to pay, and did pay, higher prices for wheat than could be netted in any other part of the country. This is all changed now. Our flour still has a little preference, but the roller has made acceptable flour from the spring wheat of the Northwest, from the soft, weak winter wheats of the Northern States, and from the wheat of every state, and we are now subjected to the closest, keenest, and most unrelenting competition of all these sections, without special advantages on our side, but in most instances with the drawbacks of greater distance from consumers and generally of higher freights. Last year, with the failure of the wheat crop, which was the greatest around us, the mills of St. Louis were operated without profit awhile, which, under the circumstances, was not unexpected. This year, with one of the finest wheat crops ever harvested, the mills are running at a loss. Cost price cannot be obtained for flour. When stocks accumulate mills are compelled to stop. At this moment a general shut-down seems inevitable, and only regard for their employees, that they may not be deprived of their livelihood, and the vague hope of a chance for the better at some future time, has kept the wheels moving thus far.

"Why is this? Is there no wheat here? Do other markets pay more?

"Of wheat there is in the public elevators alone nearly 4,750,000 bushels, a quantity sufficient to supply the mills for their ordinary wants until the next crop if not another bushel was brought here. And as to prices, the quotations of to-day are as high as at Toledo, Ohio, and De-

troit, Mich., considering that here the buyer pays elevator charges and there the seller pays them, and these places have rates of freight to the greater part of our common customers 25 to 50 per cent. less than ours. We have ceased to be a wheat shipping market.

"Why, then, with such an abundance of wheat which cannot be shipped everywhere, can we not get it at fair prices, at competing figures with other markets?

"Because the wheat stored in your elevators is owned by you for purposes of speculation only. You have sold it for distant future delivery—for May, principally—your buyer's bid for wheat is offering to sell again for future delivery, and for its practical purposes the wheat which is stored here might as well not exist. The mills idle, dead property; the hundreds of thousands of dollars invested are lost to the wealth of our city and largely to its revenues; thousands of employees must transfer their skill and labor to some other sections; the coopers, the sack men, the teamsters, the wagonmakers, the coal business, the banks, the transportation lines, and the hundreds of minor lines affected by our industry will suffer.

"Take away the flour transportation from our city and see what an immense proportion of the traffic is lost. What good will it do you in the long run to sit on your millions of bushels of wheat for four or six months and get your \$150,000 or \$250,000 of carrying charges for it when in the future years there will not be the number of mills to grind your wheat? St. Louis, it is acknowledged, can only be a wheat market through its milling interest. Remove this and the wheat will take the direct route to the final markets, and there are routes enough all over the country to these markets and rivals enough to show these routes. Remember, too, the stream of business carries with it all of a cognate nature and corn and other staples will follow wheat. Do not flatter yourselves that after having lamed our business this year a more considerate course in future will revive it. Business connections once abandoned are not easily restored. Competition in this age is too keen not to improve by all possible means advantages once secured.

"Your course, we regret to say, is in the spirit of the monopolistic tendency of our day which evokes the counterpart of socialism, and for both evils a remedy is now sought by wise statesmen through legislation. A further result of this course is the death of the receiver or commission merchant's business. You have competed with him in the country and beaten him by your superior advantages. How many will close their business and give up the fruitless contest to handle the grain here?

"Our Merchants' Exchange as a wise precaution against abuses has repeatedly refused to allow private elevators the privilege of being 'regular' and refused grade to their grain. In what essential respect is your position different from theirs now, and how long will it be when your special privilege will be withdrawn as a measure of self-protection to the commission merchants and the grain trade? How long before your forced retainers at the Exchange will rebel from your government?

"Then comes the state power from which you derive your franchises. Will it not insist that your characters are solely for public warehousemen and not for dealers, jobbers and manipulators?

"Individually we acknowledge we have often met with acts of kindness on your part; received your assistance in our difficulties and generally been well treated, and these very acts have mitigated the grievance which we suffered, but they have not removed them. The cause lies in your system, and, our burden becoming more and more intolerable, approaching to a fatal termination, we now address you with a statement of our situation and of our grievances and ask for a careful consideration and prompt remedy."

DULUTH'S WHEAT TRADE.

There are now in store in Duluth just about 7,600,000 bushels of wheat, and no other grain, all corn, flax, oats, etc., having been destroyed. The total elevator capacity is nearly 10,000,000 bushels, leaving 2,000,000 bushels or more room. During the past fall two large flat warehouses, that had not been used the previous year and were in bad repair, were repaired, each having a capacity of 750,000 bushels. Two new flat houses, each with a capacity of 600,000 bushels, have been built, and wheat was put into the last of these Friday. The Great Northern Elevator, with a capacity of 1,600,000 bushels, will be the receptacle for wheat from the Manitoba Road until it is full, so the total wheat capacity of Duluth is over 11,000,000 bushels. In addition to this there are in the harbor vessels with capacity for nearly 300,000 bushels, and several more are expected soon.

All elevators along the line of the Manitoba Road are reported full of wheat, many a little town having from 300,000 to 500,000 bushels waiting for cars. Cars are hard to get, and the farmers are unable either to dispose of grain still in their own granaries or to forward it in elevators. Consulting Engineer Smith, of the Manitoba Road, in conversation with a reporter, states that there are 10,000,000 bushels of wheat in elevators along the line of the road, and fully 15,000,000 bushels in farmers' hands awaiting removal. At all stations the sidetracks are lined with storehouses holding from 30,000 to 100,000 bushels each. The Northern Pacific Road is in about the same shape.

No less an authority than Superintendent Rupley, of the Duluth elevators, states that Duluth would increase its receipts this winter 20,000,000 bushels, were capacity afforded for the storage. "In a few years," says Inspector Burdick, "Duluth will handle a hundred million of wheat annually." The future of the grain trade at Duluth can scarcely be imagined.—*Duluth Daily Trade*, Nov. 30.

Fires, Casualties, Etc.

Lander Bros., grain and hay, San Francisco, Cal., have been burned out.

The death is announced of Samuel Winings, a grain dealer, of New Castle, Ind.

The elevator at Sheldon, Dak., collapsed Nov. 15, scattering 15,000 bushels of wheat over the ground.

C. N. Coe's grain warehouse, at Cayuga, Ill., was burned Nov. 28, with about 9,000 bushels of corn and oats.

The boiler in the Wilson elevator, at Stanton, Neb., exploded lately, demolishing the building and injuring engineer Beebe.

W. T. Price lost \$1,200 worth of grain and fixtures by the burning of the warehouse at the Black River Falls (Wis.) depot on Nov. 25.

S. S. Cobb, a well-known grain and wool dealer, of Geneva, N. Y., aged about 65 years, dropped dead recently while walking in the street.

A. Moore's grain elevator and mill, at Cerro Gordo, Ill., was totally destroyed by fire Dec. 4, together with a quantity of grain. Loss, \$5,000; insurance, \$1,500.

Malone Bros.' grain elevator, at Alvinston, Ont., was destroyed by fire on the night of Dec. 2. Loss about \$2,200; insurance, \$1,200. The origin of the fire was not known.

John I. Schlitz, a grain dealer of Pittsburgh, Pa., was arrested Dec. 2 for swindling a man named Bradshaw, of Quincy, Ill. The sum involved amounts to several thousand dollars.

During a recent gale a grain warehouse at Eagle, in West Elgin, Ont., containing 4,000 bushels of wheat and 1,500 bushels of oats, was overturned into the lake and dashed to atoms.

The railroad warehouse at Black River Falls, Wis., owned by A. D. Merrill and used by Cargill & Hoffman, was burned Nov. 25, with 2,000 bushels of grain. Loss, \$4,000; insurance, \$2,500.

The steamer Beaconsfield, loaded with a cargo of 70,000 bushels of wheat, bound to Aberdeen, Scotland, collided with another steamer in New York harbor on Nov. 19 and sank in 35 or 40 feet of water.

The schooner Comanche, owned in Oswego, N. Y., and laden with corn from Chicago for Ogdensburg, N. Y., on the night of Nov. 20 ran on a shoal on the west side of Point Peninsula, on Lake Ontario, and sank.

John M. Wade, a weighmaster for the Chicago Board of Trade since 1872, met with an untimely death about a month ago. He was driving with Capt. James Todd east on Fourteenth street, when at Stewart avenue a coal train backed down the tracks without attracting their attention. The rear car struck the buggy, crushing it to pieces. While the Captain escaped uninjured, Mr. Wade was thrown on the tracks; his head was crushed and his limbs mangled, causing almost instant death. Mr. Wade, in 1855, with his brother, established himself in the grain commission business in New York. In 1862 he came to Chicago, and opened an office in the same line under the firm name of J. Wade & Co., which did a heavy business. He was 65 years old at the time of his death, and leaves a wife and three children to mourn his loss.

A most disastrous blaze, involving the destruction of two large elevators with contents and alas! also the loss of several human lives, visited Duluth, Minn., on the night of Nov. 27. The fire started about 8 o'clock in the extreme top of Elevator "Q," situated in the eastern part of the city, on the lake shore. The flames spread rapidly all over the top of the elevator and were beyond control before the firemen could set to work. The fire soon extended to the new annex to Elevator "Q," which was just nearing completion. The firemen then turned all their attention to saving Elevator "A," across the tracks, and other buildings in the vicinity. But their efforts were in vain; they were soon compelled by the heat to give up their gallant fight. After they had left the elevator the flames at once enveloped it on all sides and were soon blazing as briskly as in the other one. At the time the fire broke out four men were in Elevator "Q." One of them, named Waldner, got out early. Charles Moore, watchman, after being burned severely, jumped from the top of the cupola, 80 feet high, and was instantly killed. A man named Larouche was missing, and supposed to be burned in the building. Charles Lee, foreman, also in the elevator, was variously reported as burned, and also as saved, but nothing definite could be learned. Elevator "Q," in which the fire started, was built two years ago by the Duluth and Western Elevator Co. Among the owners were D. G. Cutler, W. W. Davis, C. A. Gilbert and C. Coffield, of Duluth, and George H. Christian, of Minneapolis, and went under the name of the St. Paul and Duluth Elevator. It was operated by George H. Christian as lessee. It cost \$80,000 and was valued at that. The capacity of Elevator "Q" was 500,000 bushels, and there were in store in it 401,000 bushels. The annex would also have had a capacity of 500,000. Elevator "A" was the oldest elevator in Duluth, built in 1876 and owned by the Union Improvement and Elevator Co., composed of Duluth and outside capitalists, Col. C. H. Graves, of Duluth, being president, and S. B. Chittenden, of New

York City, vice-president. A few years ago an addition to the elevator was made, and its capacity was 550,000 bushels. It was worth about \$125,000. There were stored in it about 350,000 bushels of wheat, 112,000 of corn, 10,000 of flaxseed, and 8,000 of oats. The total loss of grain in the two elevators was about 880,000 bushels, valued at about \$585,000. The total amount of salvage was estimated at about 10 per cent. of the total value. The grain was owned by Duluth and outside parties, principally in small lots. On the elevators and grain the loss was about \$840,000. The elevators were insured for about three-fourths of their value, and the grain generally for its full value.

The total of all insurance on the elevators was as follows, so far as known:

Elevator "A" building.....	\$ 87,750
Elevator "A's" contents.....	274,750
Elevator "Q" and annex.....	100,000
Elevator "Q's" contents.....	152,100

Total.....\$613,600

No cause has so far been assigned for the outbreak of the conflagration, which has reduced the storage capacity of Duluth from 10,500,000 to 9,000,000 bushels. Both the elevators will be rebuilt at once.

THE EXCHANGES.

Fargo, Dak., is organizing a Board of Trade.

Tickets of membership on the New York Produce Exchange have been selling at \$2,400.

A New York paper claims that a good many Baltimore brokers are thinking of leaving the city of monuments and joining the New York Produce Exchange.

Omaha, Neb., is moving for a Produce Exchange, similar to those in existence in Chicago, St. Paul, and other large cities.

The Milwaukee Chamber of Commerce has changed its rules so as to allow citizens of Milwaukee visitors' privileges or \$5 a month.

Complaint is made on the New York Produce Exchange that the inspection of corn in New York is so rigid that a good deal of the article has been diverted to Boston, Baltimore, and other ports.

A petition is circulating on the Chicago Board to throw open the call board room, to put in tickers, supply messenger-boys, and to allow customers to use it as a waiting-room when they are furnished with tickets.

At the meeting of the Toronto (Ont.) Board of Trade on Dec. 10, it was adopted, on the motion of Mr. Maclean, "That the clause in section 2 of the by-laws referring to the amount of entrance fee to be paid, be amended by the addition of these words, 'and as soon as the total membership of this Board shall be one thousand, then the entrance fee shall be \$500.'" The present membership is 910.

The largest option trading known in the history of the New York Produce Exchange was done Dec. 4, over 20,000,000 bushels of wheat changing hands in that one day, the total for the two days including Dec. 3 and Dec. 4 being 52,000,000 bushels. There is an impression among brokers on the New York Exchange that speculative trading in grain is steadily turning from Chicago to the former city, and some of them attribute the greater activity at the East to the abolition of the "puts" and "calls" at the West.

Having purged itself of the "put and call" business, the Chicago Board of Trade is now prepared to fight the still more obnoxious coil of the so-called bucket shops, which are sapping the life blood out of that institution. The remedy proposed is both heroic and radical. If adopted, the "ticker system" will be done away with; and operators, as in olden times, will inform their customers by private dispatches as to the course of the market. It is believed in Board of Trade circles that a vote of 5 to 1 can be carried in favor of the measure, which would lay the bucket shops out in no time.

The Louisville (Ky.) Board of Trade, whose business heretofore was confined to collecting, tabulating and distributing trade statistics, and looking after transportation matters, has adopted an innovation which, if judiciously managed, will, no doubt, prove a great benefit to the business men of that city. The new departure is that henceforth all the grain dealers, seed dealers, millers, produce men, brokers, etc., of Louisville will have daily meetings on 'Change between the hours of 12 and 1 o'clock, like those held at the Exchanges of other cities. Leading members of the Board thought it about time to take this step, to offer the business men of the city every facility for a rapid and satisfactory transaction of their business.

At their meeting on Dec. 7 the directors of the Chicago Board of Trade disposed of the cases of W. R. Harvey and W. S. Crosby, members of the Board, who were charged with gross violation of the "rules." W. S. Crosby was found guilty of having violated the "put and call" regulation, which went into effect Nov. 26, and was suspended for fifteen days. This offense is also a violation of the state law covering the same point, the penalty being \$1,000 fine or one year at Joliet, or both, in the discretion of the court. W. R.

Harvey, who is already under suspension for previous violations of the rules, was suspended for one year, four out of five charges preferred against him being sustained. This will keep him out of the Board until Christmas, 1887. The charges related to a "cross trading," which is prohibited by a rule of the Board.

The "put and call" business, a system of gambling in grain which had assumed alarming dimensions on the floor of the Chicago Board of Trade, is a thing of the past in that institution since Nov. 26. It was abolished by order of the directors of the Board, and the rule covering this privileged business, which, by the way, is also a violation of the criminal code of Illinois, will henceforth be rigidly enforced. Offenders are punishable either by fine, suspension, or expulsion. Those of the members who for years have played this game and made a snug revenue out of it, of course did some vigorous kicking against the new state of affairs. But the vast majority of the crowd felt a great deal of relief from it. For the put and call system of trading has been like a wall on each side of the legitimate market, and had grown to such enormous proportions as almost to paralyze legitimate business. Many members have expressed confidence that the abolition of the privilege system would tend materially to the improvement of business. There would be greater fluctuations on the regular market, and this was bound to attract speculation to the Chicago Board of Trade.

The stoppage of the "put and call" method of doing business on the Chicago Board of Trade has caused the downfall of the most daring operator in the wheat pit for the past year. F. A. Hill is the name of the man whose failure on Nov. 29 closed the most remarkable career of this long season of depression. Hill was what is called a plunger, and he was blessed with an abundant supply of luck. He took all the chances, and thought nothing of buying or selling a million bushels of wheat. He plunged into deals that would make one of the oldest of the Board of trade millionaires hesitate. Hill was an office boy in Armour's office some few years ago, and gradually rose to the position of salesman. He bought a membership in the Board of Trade about three years ago, and began doing a little business on his own account. In the past year he has been the heaviest scalper on 'Change. He would stand up and sell 1,000,000 bushels of wheat with a coolness equal to Ream or Jones, and what is more, he always kept his contracts good. The reason that he always succeeded so well lies in the fact that he bought puts and calls, and protected himself thereby. He spent about \$1,000 a day in privileges, and when the market went against him his loss was very light. When the put and call business was stopped Hill was what is known as "up a tree," and he lasted just two days. He stated himself that his pending deals were for nearly 700,000 bushels of wheat. He could not say just how much he was indebted, but it was generally presumed that he was \$20,000 behind. It is related that the hugeness of Hill's operations was so well understood that, although he undoubtedly had at the time a good deal of money, it was not considered at all queer when a good-natured broker said to him: "Hill, I've nothing against you at all, and I don't want you to take offense, but the fact is I will not have more than 50,000 bushels of wheat with you. I want you to understand this, so that there need be no unpleasantness in the pit." Another failure on 'Change on the same day, but on a very much smaller scale, was that of Henry S. Poole, a brother of Abe Poole, of the firm of Poole & Sherman. He said that his failure was caused by the fact that remittances from the country had been very slow, while the calls for margins had been heavy. His liabilities, he claimed, would not exceed \$3,000.

THE CENTRAL ELEVATORS AT CHICAGO.

Elevators "A" and "B" and crib "C," located at the foot of South Water street, in this city, and owned by the firm of J. & E. Buckingham, have been sold to the Illinois Central Railroad Company for the consideration of \$462,255. This step was taken to settle up the affairs of the firm, John Buckingham, the senior member, having died a few months ago, and the partnership having ceased by limitation Nov. 30. The firm name henceforth will be Central Elevator Company. But there will be no change in the management of the elevators, and Mr. Ebenezer Buckingham probably will continue in charge of the same. The land on which the elevators stand always belonged to the railroad company, and the lease to the Buckinghams provided that under certain conditions and within a certain period of time the railroad company should take the houses off their hands.

In the last twelve months there have been 22,220,952 bushels of wheat received at Duluth elevators. This is a plain statement of a fact which has startled every grain man in Chicago, and which is capable of some interesting developments. Twenty-two millions would fill nearly 41,000 freight cars of the largest kind; it would make a solid train 256 miles long, and not less than 1,575 engines would be required to pull its sections. Bread enough to feed four and a half million people for a year could be made from it. No port in the world has received so much wheat in the same time. During this period the shipments have been 16,528,675 bushels. This twelve months—November to November—takes in the two largest months of the present crop year, and points, fairly well, to what our receipts will be for the crop year of '86-'7. Of the crop of 1886 Duluth has already received 25,500 cars, or 14,025,000 bushels, about as much as we ever received before in an entire year.—*Duluth Daily Trade.*

THE LAW.

Set Off of Claim Against Brokers.

Where a person deals with another, knowing him to be a broker, although the name of the principal is not disclosed, the person so dealing can not set off a claim due from the broker to him in an action brought by the principal for the purchase price.

Sale of Property—Seller's Risk.

An engine and boiler were sold under an agreement reserving "title and ownership" in the seller until the purchase price was paid. The property, being delivered to the buyer, was destroyed by fire before payment. The Supreme Court of Georgia held (*Randle vs. Stone et al.*) that in the absence of negligence on the part of the buyer the risk was that of the seller, and that the loss must fall on him.

Suing for Margins.

Recently a bill was filed in court in this city by John T. Davies against his former partner, J. A. Atkinson, charging that certain individual speculations of Atkinson had caused the failure of the firm in 1884; that he had lost \$200,000 on the Board of Trade, and had made good the loss out of the firm's funds. It was further charged that a number of prominent brokers with whom Atkinson had had dealings knew that he was misappropriating the funds of the firm, and therefore these brokers should be compelled to repay the margins or profits they had received from the deals with Atkinson. To these charges the defendants filed answers the other day declaring that they were ignorant of Atkinson's alleged wrong-doing, and dealt with him in good faith, supposing he had authority to draw checks for the firm. The case has not been decided yet.

Procuring Cause of Sale.

The broker must be the efficient agent in, or the procuring cause of, the contract to earn his commissions. It is not necessary that he should negotiate or be present at the sale if he is the procuring cause, nor need the purchaser be made known to the owner as the broker's customer if he is so in fact. If the sale is brought about or produced by his exertions, or if he introduces the purchaser or discloses his name to the owner, and through such introduction or disclosure negotiations are begun, and the sale of the property effected, the agent is entitled to his commissions, though the sale be made by the owner. If the broker produces a party ready and able to purchase the property at the price authorized, the owner can not relieve himself of liability by a capricious refusal to sell or by a voluntary act of his own disabling him from performance.

Decision of a Lawsuit.

Another lawsuit arising from the partnership of Geo. L. Dunlap and the late Perry H. Smith, both of this city, has just been decided by Judge Gary in favor of the Smith estate. The claim of the latter arose from a deal in 100,000 pounds of short ribs, entered into on joint account. It was claimed by Dunlap that he had authority from Smith to buy on the Produce Exchange on joint operation what and when he chose, and that from other joint transactions of his with Smith the latter became indebted to him to the amount of \$30,000. The court, however, held the view that the short-rib transaction stood alone, as a single joint enterprise, and not as an indication of general authority granted Dunlap by Smith to pledge the latter's individual credit. Applying this view to the facts in suit, the judge refused to allow the set-off claimed by Dunlap, and gave judgment for the Smith estate for the sum of \$16,000.

Wagering Contracts—Speculative Transactions.

In a recent case (*Tantum vs. Arnold*) Chancellor Runyon, of New Jersey, directed that certain securities given to a broker to secure the payment of losses on margins in speculations in stocks carried on for the plaintiff's husband be delivered up to the plaintiff by a relative of the broker, to whom the latter had assigned them without consideration. The court made this decree on the ground that the original assignment of the securities to the broker was void for illegality of consideration. The chancellor said: Transactions of the character of those stated in the bill—speculations in stocks and securities upon margins—are wagers within the act "to prevent gambling," and are therefore unlawful, and securities given to secure the broker against losses therein are void by virtue of the provisions of the act. The third section of the act provides that all promises, agreements, writings, etc., for money or property speculated with in violation of the first section of the act, shall be utterly void and of no effect. The instruments in question were given to West as security against losses in stock gambling transactions between him and Mr. Tantum. West's assignee now holds them, but he paid nothing for them, and he took them with full notice of the illegality of West's title therein. He holds them according to the bill by a title merely colorable.

The act makes the assignments and the note and mortgage securing it utterly void and of no effect. There can be no doubt that equity has jurisdiction to order that they be delivered up and canceled, and that the mortgages which were assigned be also delivered up. Several decisions of a similar nature have been made of late by other courts.

Bills of Lading.

A bill of lading is not like a bill of exchange or promissory note, a negotiable instrument which passes by mere delivery to a *bona fide* holder for valuable consideration, without regard to the title of the parties who make the transfer.

Although the shipper may have indorsed in blank a bill of lading deliverable to his assigns, a subsequent *bona fide* holder for value can not hold it as against the shipper if it be stolen from him or transferred without his authority.

The onus of proof lies on the person claiming an adverse right to the shipper of the property in the bill of lading.

The liability of indorsers on bills of lading ceases as soon as they are properly indorsed and transferred the same to a *bona fide* holder for value, and it is only the last holder on receipt of the goods that may sue or be sued.

The words "or order" or "assigns" must be used to transfer a legal title to the goods by the bill of lading.

There can be no complete delivery of goods until they are placed under the dominion and control of the person who is to receive them.—*Levis' Marine Manual*.

Futures in Arkansas Courts.

The law on futures in Arkansas is as follows:

ACT CXVIII.—An act to be entitled "An act to prevent the dealing in futures in this state."

Be it enacted by the General Assembly of the State of Arkansas:

SECTION 1. That the buying or selling, or otherwise (dealing) in what is known as futures, either in cotton, grain, or anything whatsoever, with a view to profit, is hereby declared to be gambling.

SEC. 2. That whoever shall so engage in dealing in futures in any capacity whatsoever in this state shall be guilty of a misdemeanor, and upon conviction shall be fined in any sum not less than two hundred and fifty dollars (\$250), and not more than five hundred dollars (\$500), and for the second offense in addition to the penalty above described, such offender shall, upon conviction, be imprisoned in the county jail for the period of thirty (30) days.

SEC. 3. That all laws and parts of laws in conflict with this act shall be repealed, and this act take effect and be in force from and after its passage.

A bucket shop keeper at Little Rock was indicted, convicted, and fined \$250 under this law. He appealed the case to the Supreme Court of the state, which sustained the finding of the lower court. Following is an abstract of the opinion:

It is argued that this act is void as being in restraint of trade; and it may be conceded that it is loosely drawn. It does not define the offense that was intended to be prohibited, except in the most general terms. It does not declare of what a dealing in futures consists, and it does not draw the line between lawful contracts for the future delivery of commodities and gambling ventures. Certainly the Legislature did not intend to impose any restrictions upon legitimate commerce, but only to destroy the parasite that infests it. Contracts for future delivery, if entered into in good faith, and with an actual intention of fulfillment, are as valid as any other species of contract. A farmer may sell and agree to deliver his wheat or his cotton for a stipulated price before it is harvested. Nay, one may sell goods to be delivered at a future day which he has not in actual or potential possession, but which he intends to go into the market and buy. But this is not what is commonly known as "dealing in futures." This phrase has acquired the signification of a mere speculation upon chances, where the grain, cotton, or stock dealt in exist only in imagination, and where no delivery is contemplated but the parties expect to settle on the difference in the market. When so limited by judicial interpretation, the statute is not inconsistent with public policy. It forbids and punishes wagering contracts; that is, contracts in which the parties stipulate that they shall gain or lose upon the happening of an uncertain event, in which they have no interest except that arising from the possibility of such gain or loss. *Farreira vs. Gabell*, 89 Pa., St. 89; *Thompson vs. Cummings*, 68 Ga., 124; *Flagg vs. Baldwin*, 38 N. J., Eq. 219.

This court has often said that it is sufficient to describe in the indictment a statutory misdemeanor in the words of the statute. If dealing in futures means contracts of sale or purchase for purposes of speculating upon the course of the market where no actual transfer of property is intended, but one party is to pay to the other the difference between the contract price and the market price of the goods at the date fixed for executing the contracts, there is no uncertainty in the description of the offense.

A jury was waived and the case was tried by the court. There was no conflict in the testimony. The plaintiff in error kept a bucket shop in Little Rock. This term seems, from the explanations of the witnesses, to denote a place where wagers are made upon the fluctuations in price of grain and other commodities. * * * Any person who was able to put up the necessary margin could buy or sell an unlimited quantity of grain or cotton, without regard to his financial ability to meet such obligations. He was

required to sign a printed form, importing, on its face, a contract for the future delivery of the article contracted for, but in none of the instances proved at the trial did the customer expect or desire a delivery. The plaintiff in error himself testified that he had carried on the business in Little Rock for six months, selling some days as high as 250,000 or 300,000 bushels of wheat, but that he had never received or delivered any commodity, always paying or receiving the difference. * * * In *Bryant vs. Western Union Telegraph Co.*, 17 Fed., rep. 825, Barr J. remarked: "It is the general course of a man's business which defines and classifies it." When it is considered that the goods contracted for were not in the possession of the apparent vendor, but that they bought each night to cover the transactions of the previous day; that their customers had no use for the goods, and no purpose to receive them; that no account was taken of the purchasers' pecuniary ability to pay the whole amount agreed upon; that no delivery ever took place in the numerous transactions that were mentioned, but the uniform custom was to settle upon a system of differences—it is impossible to reach any other conclusion than that the operations of the plaintiff in error were nothing more than wagers. The court below refused the law to be that the accused was entitled to an acquittal if the proofs disclosed that he only acted as a broker to purchase grain for and on account of his customers, and did not himself sell to them. In *Erwin vs. Willar*, 110 U. S. 499, S. C. 4, Sup. Ct. Rep. 160, it is held that when a broker is privy to such a wagering contract, and brings the parties together for the very purpose of entering into the illegal agreement he is *particeps criminis*; and with us all persons who procure, participate in, or assent to the commission of a misdemeanor are indictable as principals. *Foster vs. State*, 45 Ark. 361. The plaintiff in error received for himself or his principal a so-called commission of one-fourth of one cent on each bushel of grain bought or sold. This sum represents in reality the odds which the customer gave them in the future of the market.

Judgment affirmed.

GRAIN DISCHARGING ABROAD.

The following appears in the *Liverpool Journal of Commerce*: Grain charters differ materially in their stipulations as to the employment of stevedores, machines, and weighers. In most of the Black Sea charters there is a clause to the effect that "the merchants bind themselves to ship and send alongside at the port of loading, and take from alongside at the port of discharge, at their own expense and risk," the cargoes as per agreement. In American ports, the Baltic, and White Sea grain is shipped in bulk. Australian, Indian, and Chilean grains are sacked. The custom of receiving grain by the holders of bills of lading varies considerably, and depends upon whether, say, wheat is to be forwarded to the interior or stored in granaries at the port of discharge. Some merchants require grain to be laden into lighters in bulk, and they direct that all bags be shook. Other importers send bags to fill in the holds. The operation of filling delays the discharge, and entails additional expense, as it is easier to shovel out the grain than to pitch it into sacks. To meet this employment of extra labor it is customary for merchants to send men to hold and tie the bags. But there are charter parties in which it is agreed that merchants shall discharge the cargoes at their expense. Very few charter parties provide for the payment of corn meters. At several ports the corporate authorities provide sworn meters, and the meterage is fixed on the cargo, and this makes the merchant liable to pay it. But in numerous cases there are no corporation meters. When town, quay, or harbor dues are levied on grain by authority of local Acts of Parliament, public meters or weighers are appointed; and the rule of law is that if the weighing or measuring is performed on board a vessel the shipowner must pay, and if done on shore the merchant. There are, however, exceptions to this rule, as where the statute makes the charge fall on the cargo or shipowner respectively. There is not any general system in force which may be denominated as universal, or approaching thereto. At some ports, for example, there are privileged porters, who must be employed, and so many freemen or licensed men may be discovered here and there that any effort on our part to define the custom of the grain trade would be futile. In London each dock company (or wharfinger) has its own methods. At one dock, where an extensive discharge of grain-laden steam vessels is conducted, there is a quay rate of 2s., one-half of which is charged to the shipowner for taking the cargo out of the hold and landing it on the quay; the other half is payable by the merchant, who is allowed ten days' storage free, and the 1s. covers fire insurance, dating from the final discharge of vessel. If a merchant desires to take delivery by craft alongside, he avoids payment of the 1s. quayside, provided he is prepared to receive his grain at the rate of 8,000 quarters per diem from the dock company's tackle. It is important, therefore, to arrive at an understanding as to who is to pay for discharging grain from ships, and to hire the meters. We have known the meterage to be divided between the shipowner and merchant where there is no special contract referring to payment. This is an unsatisfactory state of affairs that leads to ceaseless contentions. Nothing would be easier than to insert a clause in charter parties to the effect that the costs appertaining to unloading and weighing or measuring should be borne by the shipowner or merchant according to agreement, but when this is left open for discord at the end of a voyage, and a master cannot obtain settlement of freight, the consequences resulting are of a most disagreeable character.

Press Comment.

THE PUT AND CALL BUSINESS.

It is sincerely to be hoped that the board will not recede from its position on the privilege business. It has already winked too long at an open violation of the law by many of its members, and the list of offenders has not seldom contained the names of officers of the organization. If the board or its advisers are satisfied that the law is a bad one they have open to them the privilege of moving for its repeal, and might, perhaps, be working in the interest of good business methods in bending its energies in this direction. But so long as Sec. 178, Chap. 38 of the Criminal Code of the state of Illinois reads in its present fashion there is little more apology for trading in puts and calls in this city than might be urged by the frequenter of the gambling-hell, who is; or ought to be, in momentary danger of a raid by the police. Inasmuch as the board includes a good many church members, and men who are otherwise estimable components of society, they can not afford, either individually or in their corporate capacity, to relax the recently-formed resolution to abide by the law.—*Chicago Tribune*.

CHICAGO AS A GRAIN MART.

The fact that receipts of wheat at Chicago this season have declined, and that what it has lost in this direction has been gained largely by Minneapolis and Duluth, has stirred up newspapers as well as members of the grain trade in the Northwest. It is noted, too, that the chief grain inspectors at Chicago, and a committee from the Chicago Board of Trade have been examining the methods of handling grain at the Northwestern cities named, presumably with the intention of improving their own when they get home again. It is alleged that Chicago has thus far graded wheat which was not quite clean quite low, against the merits of the grain, and that from this practice the opportunity to buy good wheat cheap and clean it (say at Milwaukee, after paying extra carriage) has given rise to a regular business in that line at the cost of consignors. Meanwhile the practice is working its own cure, and Chicago is surprised to realize that Minneapolis, St. Paul and Duluth grade wheat subject to cleaning, that the elevators are all fitted with cleaning apparatus and that a state weighing law are among a few reasons why Chicago's long supremacy as a grain market had begun to show signs of a decline.—*Bradstreet's*.

THE BOARD AND THE BUCKET-SHOPS.

It certainly seems a little singular that the board should be compelled to furnish with unflinching regularity the material on which these parasites feed, and find itself powerless in the case except by cutting off the quotations altogether. But it is conceded to have resolved itself to this, and the question now arises if the board can afford to take such a radical medicine at the risk of finding the remedy worse than the disease. Of course it is known that the very existence of the board as a trading organization depends upon the outside world, which is not likely to send many orders to buy or sell unless kept fully informed as to the current changes in the market. This furnishes the reason for the existence of a large corps of reporters and messengers on the floor engaged in watching and recording the fluctuations of the markets. The figures are sent out to the several Boards of Trade in the other cities of this country and Europe, and are also distributed to the bucket-shops. The attempt to prevent the latter has hitherto been a failure, and it now only remains to try the heroic remedy or calmly submit to the infliction with the full knowledge that it is slowly and surely sapping the vitals of the produce trade of this city.—*Ex.*

WAREHOUSING AND CLEANING GRAIN.

The business of grain cleaning and doctoring, which has grown to very large dimensions in this city and Milwaukee, is practically fostered by the laws governing the management of the warehouses and the rules for the conduct of the inspection by state officials. The law does not permit the changing of the grade of any parcel of grain while it is in the custody of the warehouseman, and the rules oblige the inspectors to discriminate against grain that is mixed with foreign substances to an extent sufficient to justify them in pronouncing it "not reasonably clean." It may be graded down for other reasons as well as this, but the presence of a little dirt or straw over and above the very small percentage of impurity allowed as standard is enough to cause the whole lot to be marked down. In the case of wheat the result is often a great loss to the seller. The dirt present may not be more than corresponds to a deterioration of one cent per bushel, but if inspected as No. 3 when it would otherwise have passed grade as No. 2, it has to be sold at 12 to 14 cents less, if placed in store. At this point the "doctor" steps in. He offers just enough more than the regulation price to make it worth the while of the receiver to take the extra trouble of selling it by sample. He then cleans it, and mixes in a little of a better quality, if that be needed, after which it is placed in store to be sold as "regular."

The only way to break up this system, and allow the owner of a parcel of grain to get for it just what it is worth, is to change the law so as to permit the warehousemen to clean a given parcel of grain when requested to do so, and not otherwise. But this cleaning should be required to be done either before the grain is placed in store or after it is ordered out for actual shipment, and the

owner should have the right, in person or by deputy, to watch the operation so far as practicable. Regulations of this kind prevail at Buffalo and some other places and the plan has been found to work well; though open to the objection that it allows the mixing of grades by shippers in a way that can not be followed here.—*Chicago Tribune*.

CANADIAN COMPETITION IN WHEAT.

As for the matter of Canadian competition, that is quite as simple. Canadian wheat, like American wheat, finds its market abroad. What possible difference can it make in prices whether the grain of the Northwest Territory is sent over the Canadian Pacific to Montreal and thence to Liverpool; or carried by way of St. Paul, Chicago and New York to the same point; or sold in the United States and then exported, to find the European market, where alone there is a demand and to which the available grain supply must all tend by one route or another? It is just as immaterial as it is to a traveler whether he takes one or another of the pool roads, with a fixed schedule of fares to Chicago. The people of Minnesota need no instruction in a matter so elementary. The *Caledonia Argus* has succinctly discussed the subject. It notes that the Canadians can ship all the wheat they care to through this country in bond, without paying one cent of tariff. If the millers of Minneapolis, or elsewhere, choose to do so, they can buy this wheat in their markets. They pay the twenty cents of duty. Then they turn the wheat into flour and export it. At the point of export, that twenty cents is all refunded, save five per cent., retained by the treasury to cover duty on the bran and shorts sold here. "The actual protection," as the *Argus* correctly states, "which the farmers get, is five per cent. of twenty cents, which is one cent a bushel."—*St. Paul Globe*.

THE HENNEPIN CANAL.

It seems that the limit as to time fixed by the Illinois Legislature for the acceptance by the general government of the Illinois and Michigan Canal, under the act of cession, has nearly expired and the champions of the Hennepin Canal will only have the coming session of Congress for pushing the claims of this important work; at least, until new legislation can be perfected by the Illinois Legislature.

There has never been a more important work in the way of public improvement projected in the Western country than is the Hennepin Canal project. It will be an improvement of far reaching and lasting importance to the general agricultural interest of the whole upper Mississippi Valley, and if the principles of true statesmanship could be applied in the case there could be no delay in carrying out a work so important in its whole character. We have heretofore referred to the great importance of this work in a military point of view. The general government could well afford to spend all the money that would be required for its construction for the sole purpose of having the Mississippi River and the lakes connected by a water-way such as the Hennepin Canal would be for military reasons alone. But this grand project thus far has had to encounter hard, unreasonable opposition.

We are inclined to the opinion that the most of this opposition comes from the combined railroad interests of the West. The railway companies see plainly enough that the Hennepin Canal when completed would during every navigation season command an enormously heavy freight trade in the carrying of all kinds of bulky articles, and this fact constitutes the strongest kind of reason why the canal should be built without delay.

The opposition of the railway interest to the carrying out of this great project may be all natural enough from their standpoint, but we fail to see that it is justifiable, inasmuch as it antagonizes the best interests of all the producing classes of the great Upper Mississippi Valley. We are of the opinion that the time is not far distant when this project will overcome all opposition and be carried to completion on military grounds if on no other.—*Drivers' Journal*.

THE BRACE GAME.

It is always to the interest of bucket-shop backers to beat their customers by fair means or foul. Other things being equal, they probably prefer skinning their friends fairly, and the legitimate percentage is enormously in their favor, but like the Scotchman who told his son "to make money honestly if he could, but to make money," they are bound to win at all hazard. The very best authorities on the chances of bucket-shop gambling, i. e., the bucket-shop backers and proprietors themselves, have ascertained that out of every thousand men who "buck the game" 800 lose. That calculation is based on the assumption that the game is "square," which is seldom the case. Where the bucket-shop speculators can see what they are doing and can ascertain to a certainty that they are being fairly treated, the percentage may possibly be no greater than four to one against them. Whenever their trades are taken at the agencies that are scattered over the country and sent to the Chicago offices to be executed, the party putting up the money may take it for granted that he is being swindled in some way, and that he has no earthly show of winning. It is quite the common thing for the large bucket-shops to rebate all commissions on business sent them from the outside. Commission merchants cannot do business for nothing, and pay office rent and other expenses. The best they can do for their agents is to divide commissions. It is safe to say that where men or combinations of men compete for the privilege of doing your business for nothing they are planning to rob you or take advantage of you in some way. That may be set down as a certainty.

Speculators will consult their interest by studying the

question of the difference between a principal and an agent. When they understand this question fully they will give bucket-shops the go-by, because they will see that it is to their business interests to do so. The case was briefly stated in *Daily Business* the other day, as follows:

Bucket-shops take the trades and become interested in freezing out their customers. If their customers win, they must lose. On the other hand, the commission merchant or broker never loses his identity as an agent, and his relations with his customers are always friendly. He would rather see his principal make than lose money, and if he does his duty he keeps his principal advised to the best of his ability. The bucket-shops are vitally interested in having their customers lose. That is the great percentage against the bucket-shop speculators.—*Chicago Daily Business*.

RAILROADS AND STORAGE FACILITIES.

A few years ago there arose a loud outcry against some of the railroad companies on the ground that they virtually owned and operated the elevators along their roads. This agitation led to the general abandonment of the elevator business by such companies as had been engaged in it. And now that experience has nearly completed its usual circle Mr. P. J. Smalley, of the *Caledonia Argus*, has the boldness to propose as a great measure of reform in the interest of the farmers and to break down the monopoly of the wheat trade by wealthy elevator companies, that the railroad companies be required to furnish all requisite facilities for handling grain, to construct, own and operate the elevators necessary for that purpose, just as they voluntarily furnish yards and shutes for receiving and shipping of stock. They are not to buy wheat, any more than they buy hogs or cattle, but simply to receive it and store it for a definite charge in their elevators for the purchaser, and ship it to the market to which he consigns it. Mr. Smalley thinks the competition of purchasers would fix the grade and price of the grain. The matter is not so simple as that. His suggestion seems to be worthy of serious consideration, but serious consideration will show the necessity of inspection at each elevator, and of a weighing and cleaning apparatus in order to definitely fix the grade of the wheat before it goes into the bin. Then the railroad company could afford to give the purchaser a receipt for a definite quantity of a definite grade of wheat, which ticket could be sold at St. Paul, Minneapolis, Duluth or elsewhere, or the farmer could consign his own wheat on such ticket to any market in the state.

With these amendments we don't see any reason why the railroad companies should not be required to furnish storage for wheat, just as they do for all other kinds of freight, nor why that plan is not the simplest and most economical of all that have been tried. There must, of course, in this case as in that of other freights, be a complete divorce between the buyer and the warehouseman, and we are not able to see why the railroad company can not perform its functions in the storing, handling and shipping this class of freights without any suspicion of clandestinely acting also as a purchaser as in performing the same functions in reference to any other class of freights.—*St. Paul Pioneer Press*.

AFTER DULUTH'S 1 HARD.

Yesterday a deputation of Chicago Board of Trade men and grain inspectors arrived in Duluth on a tour of inspection. The committee sent by the Board of Trade elevator men and railroad representatives consists of Messrs. W. H. Harper of the Chicago & Pacific Elevator Company, C. W. Wheeler of Munger & Wheeler, Geo. G. Packer of the elevator committee of the Board of Trade and C. W. Wetherell. In addition to these came P. Bird Price, chief grain inspector of Illinois.

After arrival here yesterday the committee went over the magnificent elevators of the Lake Superior Elevator Company and carefully inspected the system of cleaning and handling wheat, their mission being particularly in relation to cleaning. They were very much interested in what they saw as well as in the magnificent store of No. 1 hard wheat, a kind which Chicago never sees.

The wish of the Chicagoans is to find in that city a market for the hard wheat of northern Minnesota and Dakota, which now goes almost exclusively to our Duluth elevators, and thence to the East and Europe. They feel their declining importance as a wheat market, and realize that Duluth receives nearly twice as much of the golden commodity as they do. They have the pleasant belief that all this can be done away with and Duluth left a mere way station on the road to Chicago if they can clean the wheat, so they have come up here to find out how it is done. Chief Inspector Price said yesterday that if a car of No. 1 hard wheat, "weighing not less than fifty-eight pounds to the measured bushel," should happen to get to Chicago, it would be graded No. 3, if a little straw or cockle was found in it, while here the farmers would not be defrauded but the wheat would be cleaned in the elevators and receive its right grade. Duluth elevators, he said, are provided with several screens and blowers for removing the straw, cockles and dirt from the wheat, which comes in rather dirty owing to the small facilities for cleaning in western Minnesota and Dakota.

Two of the visitors, Messrs. Harper and Wheeler, arc, it is stated, about to build in Chicago new elevators, which are to be fitted with cleaning apparatus, and which are destined to store Minnesota hard wheat. These gentlemen would better build here. Chicago Board of Trade men who own a very considerable quantity of wheat in our elevators, and have shipped much on to Buffalo and other points, would of course be glad to store in Chicago if possible.

The gentlemen forget that Duluth is nearly 500 miles

nearer the coveted wheat on rail hauls, and is no farther from the East than is Chicago.—*Duluth Daily Trade*.

WHEAT TRANSPORTATION IN ASIA MINOR AND THE U. S.

It may be assumed that Asia Minor and the United States represent the extremes of transportation facilities, yet when we come to analyses, we find in this regard, as in all others, that extremes meet, or nearly meet, and that with all our facilities we are not so very much ahead of Asia Minor when our products are laid down at the ship. Our consul general at Constantinople, reporting upon the very backward condition of the public highways in Asia Minor, says that in the district of Castamoni wheat is worth 8 cents per bushel. The average price of wheat in England is about \$1 per bushel, or just twelve times as much as it is worth in Castamoni. The carriage by railroad from Kastamounce to Samsoon, a distance of 150 miles, would not exceed 12 cents; and 15 cents per bushel would, at present rates, be a high freight from the Black Sea to England. Add 9 cents per bushel for charges on this side—a rather high estimate—and 9 cents a bushel for selling charges in England, and the result shows that wheat at Kastamounce ought to be worth, not 8 cents per bushel, but from 48 to 56 cents. It follows that, owing to want of means for transportation, the grain produce of Asia Minor only brings to the grower one-sixth, at most, of its real value on the spot where it is grown, and that five-sixths of that value is lost to him. Kastamounce is in a great grain-producing region, only a small portion of which, under these discouraging circumstances, is cultivated; and it does not require a very lively imagination to conceive the change that would be brought about in the impoverished districts of Asia Minor if the value of the main staple of products were sextupled.

Of course we are much in advance of this condition of affairs, but the difference is not so much as it seems. In the first place we have railroads skirting our farms, and good wagon roads everywhere. Having all these facilities we are apt to assume that we labor under no disadvantages, and that our farmers realize upon their products much more than those of Asia Minor. But if we take the prices of wheat in Minnesota and Dakota—that is what the farmer realizes therefor—and compare the same with the prices paid therefor in New York, ready for shipment to Europe, the extremes come nearer together than is flattering to our pride in transportation facilities, for the railroads and canals realize more than does the farmer for his labor and outlay.

The fact is that were our great facilities, in this regard, only reduced to honest running expenses, and a good percentage on real capital employed, we might then bless our lucky stars that we lived in the United States instead of Asia Minor, for not only would our farmers then realize well-deserved profits on their labor, but we could dominate the world's wheat market, and give the Old World much cheaper food at the same time. It is somewhat of a panacea for the grievances of the wheat raisers of Asia Minor to know that their transportation tax goes to the carters of the country, who in most cases are the wheat raisers themselves.—*American Exporter*.

THAT NEW BILL OF LADING.

The Chicago Rate Committee, representing all the Eastern line of railroads, recently decided to put into effect a uniform bill of lading. Notice has been sent to shippers that their bill of lading books heretofore used will be useless after Jan. 1. At the same time notice is served on the shippers that a revised list of "terms and conditions" will also be adopted. In their revised regulations the railroads have attempted to go further than ever before in freeing themselves from all responsibility for damage of any kind to goods in transportation.

This arbitrary action on the part of the Eastern roads has aroused the merchants and shippers, and the inquiries are very numerous to know whether the terms of the railroad lines are sound under the law.

Many appeals have been sent to Commissioner C. M. Wicker, of the Chicago Freight Bureau. Mr. Wicker expresses his views as follows:

Referring to your favor inclosing proposed form of receipt and bill of lading to be used by Eastern roads after the 1st of January. Your communication, and others of a similar nature by the same mail, conveys to us the first intimation we have received that such a proposed form of bill of lading had been adopted, and it is hardly possible at this time to estimate what effect our efforts may have upon the roads proposing to put it in force, but if put in force you can rest assured that little or no harm will come from it. The proposed form contains hardly a provision that in its entirety will stand the test of common law. For instance, the fire clause. At common law railroads are held responsible for loss resulting from fire, other than what the courts term an "act of God or the common enemy," and can not relieve themselves of that responsibility. In this particular the Western roads are more sensible than the Eastern, they having long since ceased trying to relieve themselves of such liability. In fact the only fault we find with the fire clause used by prominent Western roads, is that it throws the burden of proof upon the owner, instead of the transportation company assuming the risk and paying the loss, unless they can prove that the loss resulted from an "act of God or the common enemy." The fire clause of the proposed form is at variance with common law, and therefore valueless.

Referring in detail to the "terms and conditions:"

The "terms and conditions" which you "accept as just

and reasonable" are not agreed "terms" unless you subscribe to the conditions.

Clause 1 is lawful in the absence of a contract to the contrary, excepting its closing portion where the carrier seeks to limit its liability. A carrier agreeing to forward property to destination can not limit its liability short of its contract destination, be it over one road or many.

Clause 2. The first half of this clause is clearly unlawful. The last half of the clause mentions certain risks which the law does not contemplate a common carrier shall assume. Still if the loss results from this negligence no specification shields the carrier. The risk for water transportation is clearly defined by United States statutes. A shipment intended for water transportation should be insured, or the owner must carry the risk. Often, however, the carrier agrees to provide insurance, as in the case of Detroit transfer or New York harbor lighterage.

Clause 3. This section contemplates that in some cases the carrier shall be responsible, which contradicts clause 2. It is absurd to suppose the carrier, who exempts himself from all liability, shall have the benefit of any insurance an over-careful owner may choose to effect upon his property. Each carrier, who for his own convenience, or the convenience of others, associates himself with others to form a line, are individually and collectively responsible for loss occurring while in transit over the contract route. Value or cost at time and place of shipment, in the event of loss or damage, is lawful or more is at times obtainable by process of law.

Clause 4 would probably be sustained by the courts, subject to evidence as to what constitutes a reasonable time and a reasonable charge; which points have never been settled by the courts. All property is subject to necessary expense for cooperation.

Clauses 5 and 6, while they do not effect you, are clearly unlawful, unless a consideration for such service is expressed in the bill of lading or shipping contract.

Clause 7 is lawful. In fact all property which has reached destination and has been placed in the usual place of delivery is at owner's risk, the obligation of the carrier as a common carrier having ceased. In this particulars however, the courts of the last few years are changing their ruling. At the time of the Chicago fire, the courts ruled that property that had reached destination and been placed in the usual place of delivery was no longer in the carriers' hands as common carriers, but as warehousemen, but later decisions hold the roads responsible as a common carrier for a reasonable time, but have never stated how many hours or days constituted a reasonable time.

Clause 8 is unlawful. The common carrier's recourse is to refuse to receive property not sufficiently marked. If they do receive it they are responsible for it.

Clause 9. Weights are always subject to correction, and owner, under the common law, is entitled to his property being transported at actual weight, unless otherwise agreed. It is superfluous to designate what particular mode of ascertaining actual weight shall be used.

Clause 10 is contrary to common law—and railroads are not excepted—which designates by statute the limitation in which a just claim may be presented.

In conclusion allow us to say that this association, in connection with its Board of Trade interest, is advocating a bill before Congress prohibiting a common carrier from making a contract or imposing conditions at variance with common law. If we can get such a bill passed, the shipping public will no longer be annoyed by such monstrosities as that proposed by the Eastern road. In the meantime, unless you accept in writing the "terms and conditions" on each receipt and "bill of lading," its provisions are not good as against the common law governing common carriers, and can do you no harm.

C. A. King & Co., of Toledo, Ohio, have received lately 1,200 reports from grain dealers and millers covering nearly every important wheat country in Michigan, Ohio, Indiana, Illinois, Missouri and Kansas. The report shows that the wheat acreage sown this fall is a trifle larger in Ohio, Illinois, Indiana and Missouri. Kansas shows a slight decrease and Michigan no change. The outlook for the growing crop is very favorable; many of the reports say never better. Nearly half of the last crop remains in the interior, country mills and warehouses averaging over half full. Michigan has the largest reserve and Ohio next, while Indiana and Missouri have marketed more freely. Nearly half the reports say farmers are disposed to crib their corn; over one-third say they have none to spare, and the remainder are disposed to sell now.

Messrs. Chas. Kaestner & Co. are in receipt of the following orders: Toledo Brewing and Maltng Co., Toledo, Ohio, complete machinery for a new brewing house, including Kaestner Mashing Machines and Kaestner Friction Clutches; J. S. Townsend, Buckingham, Ill., complete feed mill outfit; the Pittsburgh Tube Co., Limited, Pittsburgh, Pa., two special Kaestner Patent Friction Clutches; these frictions are thrown in and out nearly 400 times an hour, being used on pipe rolls, and are the third order received from this company; the West Side Brewing Co., of Chicago, have awarded the contract for their new brewery to Messrs. Kaestner & Co., who furnish all machinery and millwright work; same Southern Brewing Co., New Orleans; Heim Brewing Co., Kansas City; Mescke & Hoch, Marquette, Mich.; Haberle Brewing Co., Syracuse; Kerney's Ale Brewing Co., Syracuse; the Reyman Brewing Co., a No. 5 Morgan Scourer; Wahl Bros., Blue Island, Ill., two 75-horse power friction clutches; Bradley & Vrooman, Chicago, complete outfit for their new lead and paint factory; Mound City Paint and Color Co., St. Louis, two Western Mills and Mixers. Henry Weinhard, Portland, Ore., one Kaestner Malt Mill, Kaestner Mashing Machine, and special machinery.



Dispatches from upper lake ports on Nov. 30 announced the close of navigation, the Straits being filled with ice, which was closing tight fast.

It is reported that the average earnings of the lake carriers for the past season, deducting expenses and wreck losses, will show a net profit of 20 per cent.

The last clearance of grain from Duluth, Minn., for the lower lakes was made Nov. 28 by the propeller Spencer, carrying 54,000 bushels of wheat. The total water shipments for the season aggregated about 17,000,000 bushels.

The largest grain cargo of the season and also one of the largest ever taken at one time from the port of Montreal, Que., was shipped on the Newcastle City for Leith some time last month. The cargo amounted to 108,197 bushels, consisting of 32,192 bushels of wheat, 33,751 corn, 21,677 peas, and 20,577 oats.

The total grain receipts at the port of Montreal, Que., from Jan. 1 last up to December were 14,386,481 bushels, against 10,406,724 bushels during the same period in 1885. Shipments during the present year have reached 13,953,783 bushels, or 96 per cent. of the receipts, against 9,158,452 bushels, or 83 per cent. of the receipts in 1885. There was an increase of 38 per cent. in receipts and of 52 per cent in shipments during the present year, as compared with 1885.

The wheat shipments from Duluth, Minn., for the past season were about 16,500,000 bushels. Reducing the flour shipped from that port to bushels of wheat, the total for the year was about 22,300,000 bushels, or about 4,000,000 bushels more than Chicago has shipped during the same time. For the twelve months ended Nov. 30 the wheat receipts at Duluth were 22,000,000 bushels in round numbers, while for the same time Chicago's receipts were but 14,200,000 bushels.

There is a movement on foot to carry out the plans of the Atlantic & Mexican Gulf Canal Company, chartered by Florida and Georgia, and granted valuable lands and water power. The route of the canal is from the mouth of St. Mary's River on the Atlantic, through Okeefeeno-kee Swamp and the state of Florida to the Gulf. It is added that twenty-two states and territories are interested, inasmuch as the traffic of the Mississippi Valley and its tributaries is involved. The canal, which would shorten the passage to the mouth of the Mississippi, is to be capable of accommodating "all such boats, steamboats, tugs, barges, and other craft as navigate the Mississippi above New Orleans." The advantages of this route will be the saving to commerce of heavy rates of insurance, which are made imperative by the dangerous navigation of the Bahamas and the reefs of Florida, and in the coasting service a saving in distance of 1,200 to 1,500 miles. Official statistics go to show that the average tax on commerce through high insurance, etc., over the present route would be about \$5,000,000 yearly.

The last grain fleet of the season experienced unprecedentedly severe weather on its passage from Chicago to Buffalo. Chicago was left in fair weather, but on the first day of this month a cold snap attacked them, and the fleet was compelled slowly to feel its way. The waves breaking over the decks froze up the rigging, and deluged the sailors with icy spray. All through the storm gangs of men had to be kept at work on many of the boats chopping the ice off the decks and throwing it overboard as fast as formed. It took nearly three days to reach Manitowoc, that time usually being sufficient to reach Buffalo. Early on the morning of Dec. 5 they reached Lake St. Clair, to find it impassable. The ferry boats Excelsior, Ariel, and Fortune were sent to their assistance. Up in the lake the Excelsior found the tug John Owen and her tow, the Michigan and Nicholson, fast in the ice, and released them. It then took the ice crushers all day to get the grain fleet down to Detroit. Here they were obliged to stop for coal and provisions. The Susquehanna had burned nearly 100 tons of coal. The entire fleet was sheathed in ice from gangways to trucks. In some places it was three inches thick and occasionally covered the hatchways. On the morning of Dec. 6 the fleet left the docks at Detroit, with the three ferryboats ahead, ready to crush any heavy ice between the harbor and Bar Point. The scene was described as the most beautiful ever seen on the Detroit River. The propellers are among the largest on the lakes, and the ice with which the rigging and bulwarks were incrustated shone in the sun like diamonds. The value of vessels and cargoes is estimated at \$1,000,000. The cargoes were of grain, flaxseed, oilcake, and flour.

The interest of the firm of Campbell & Ratcliffe in the new Frontier Elevator, Buffalo, N. Y., has been transferred to a syndicate composed of Gen. John C. Graves, E. N. Cook and Gus. Fleishman, who now own the entire \$400,000 worth of capital stock. The sale, it is said, was not made because the other stockholders distrusted Mr. Campbell, but because so many reports had been circulated that were untrue in connection with Mr. Campbell's indictment for complicity in the grain steal reported elsewhere in this issue.

COSTS OF CARRYING PRODUCE.

Business on the Chicago Board of Trade during the last few days of the month is generally in large part composed of what is technically known as "changing." Those who have bought property to be delivered at the opening of the month do not want it in their possession, and pay a premium to men who make it a business to carry the grain or provisions for those who operate without having the money required for possession of the property. The amount of the premium is determined by the storage charges plus the cost of insurance and interest on the money employed and the varying sum charged as profit on the accommodation. During the summer season the total of charges averages fully two cents per month on each bushel of grain, and in winter about half as much, the storage charge being less in the cold weather. For hog products the cost of the carrying is not far from ten cents per month on each barrel of pork and an eighth of a cent on each pound of lard. It is these carrying charges which form the great standing argument in favor of low prices. The cost being paid by the man who is the nominal owner of the property, the trader who takes an inside view of things evades this responsibility as much as possible, and, as a rule, ranges himself on the short side. It is chiefly a steady adherence to this line of policy that has built up those of the large fortunes on the Board which have not been accumulated in the business of carrying for other people.

At first blush the profits of the latter may seem to be very small. They are not seldom represented by zero as calculated on the supposition that all the grain and provisions nominally carried are actually so. The profit comes in on the responsibility assumed which does not involve the outlay or use of capital. It is probable that at the close of this month fully five times as much wheat is turned over as is actually in store in this city at the present moment, and the same rule will apply to a smaller extent in the case of other grain. It is easy to see that if the nominal net cost can be collected on 5,000,000 bushels while there is no expense except for clerk hire on any but 1,000,000, the profits at two cents per bushel will be something enormous. And so they are. The fee is exacted in each case because it can not be said with certainty that in that particular instance the money will not have to be employed, and the man who undertakes to carry a single lot of 5,000 bushels is pretty sure of having to shell out the cash therefor. But with the great majority of the trades it is the other way. The "long" who pays to have his responsibility carried for him from one month to another pays four or five times what the service costs the one who acts the role of capitalist, though he may simply borrow the money from another with which to tide over the trade through the months as they roll along.

It follows that an operator on the long side who should arrange to do his own carrying might count upon being able to do it as cheaply as the service is now performed for him on any particular parcel, and that he would average very much less than the sum he now pays out for the accommodation. In other words, it need not cost more than a quarter to one-fifth as much as it actually does cost to transfer grain and provisions through the succeeding months, even with no change from the present rates of storage and insurance. This is a fact which does not seem to be understood by the trade, and of course the men who make their money by operating on the present system are interested in keeping its "true inwardness" a secret as long and as closely as possible.—*Chicago Tribune.*

THE FOOD SUPPLY OF BRITAIN.

In his letter to *Dornbusch* of the 22d ult. the well-known agricultural writer, H. Kains Jackson, makes some startling statements with reference to the wheat supply of the United Kingdom. He says that the first three months of the year have only brought from domestic farmers and foreign sellers at the rate of 120,000,000 bushels per year, while the country wants 150,000,000. He estimates that at Christmas the stores of wheat in the hands of merchants and farmers will be over 24,000,000 bushels less than in any other year of this decade. Consequently buyers are at the mercy of sellers in a greater degree than usual. The chief sellers are the holders of the American visible supply and the cosmopolitan contractors who deal in Indian wheat. But of those two sources of supply only the former can be reckoned on as ready enough to meet any emergency of demand. Neither the Indian seller nor the Russian nor Australian could compete for sale and immediate delivery. California and India are the two great contributors to the 15,000,000 bushels of breadstuffs under contract to arrive during the next four months, and the reported sales of American to arrive in December and January are insignificant. Mr. Jackson expresses the fear that the required surplus for food during the winter can only be obtained at the expense of reducing reserves in the spring to an extent that might awaken disastrous speculation.

In another issue of the same paper we find the statement that the wheat area of the United Kingdom last year (2,286,000 acres) was 7.8 per cent. less than that of 1885. The cause for this decadence is even more significant than the fact itself. It is that wheat-growing does not pay the British farmer. He can not afford to manure the land and pay the rent and taxes imposed upon him for the price at which he has recently had to sell his crop. It can scarcely be doubted that wheat will become less and less an article on which the farmer of the United Kingdom depends to enable him to pay his way. The average price was down to 29 shillings and 8 pence in the middle of October. It is now about 20 pence more than that, but

the improvement is not great enough to tempt an enlargement of wheat culture, and the promise for the next crop is scarcely equal to the yield of the current year. It seems probable that nothing but the fact of the large visible supply in this country has prevented a much greater advance in prices on the other side of the Atlantic. The people there look across the ocean at our 60,000,000 of bushels in storehouses, and regard it as the "outward and visible sign" of almost unlimited quantities that are only waiting for a demand to draw them out. It is this, more than anything else, that enables the British buyer to retain his composure.

In this connection we may refer to the news of yesterday in reference to the wheat crop of the Pacific slope. It is said by prominent men in the trade to have been vastly overestimated, one of them claiming that the exportable surplus of the year is not more than half of what it was alleged to be. The quantity available for export from the last harvest is now believed to be little more than 25,000,000 bushels. What a change from the apparent position of a few weeks ago! Then wheat was believed to be so abundant all over the world as to be "a drug." The man who was loaded down with wheat found none poor enough to do him reverence. Now the article is discovered to be actually worth something, and the wise men are asking if there is a sufficient quantity to last till next harvest time.—*Tribune.*

In Ohio the area of wheat is fully maintained or somewhat increased; a small portion only of the seeding is looking unpromisingly, while nearly all is in good to extra condition; some instances of fly in the early sown. The area in Indiana is equal to the average of recent years, or larger; about three-fourths of the seeding is doing well, the remainder being but fair to rather unfavorable; some complaint of fly; late rains helping the backward portion of the crop; seeding in the southern part of the state delayed by drought, and not fully completed yet in a few localities. In Illinois the returns are almost uniformly favorable, with indications that the acreage is about the same as last year; some cases of fly. In Missouri there is probably no increase in area; most of the seeding looks well, but considerable of it is more or less late and unfavorable, due to drought.—*Price Current.*

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The Fairbanks Scales make no mistakes; and when furnished with DeMuth's Patent Check Beam the weighman can make no mistakes. If it is important to have correct Scales, it is just as important to have a correct record of the weights. Unless you know your weighman has made no mistake you do not know that your weights are correct.

At the point in transportation of grain where the weight is made final, there should be preserved some evidence that the weighing was carefully and correctly done. A weighman's memory, or habit, or certificate, is not evidence. With the ordinary beam no one knows or can show evidence that the figures were correctly recorded; with the Check Beam the evidence on this point is indisputable.

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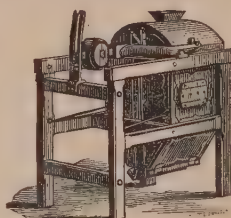
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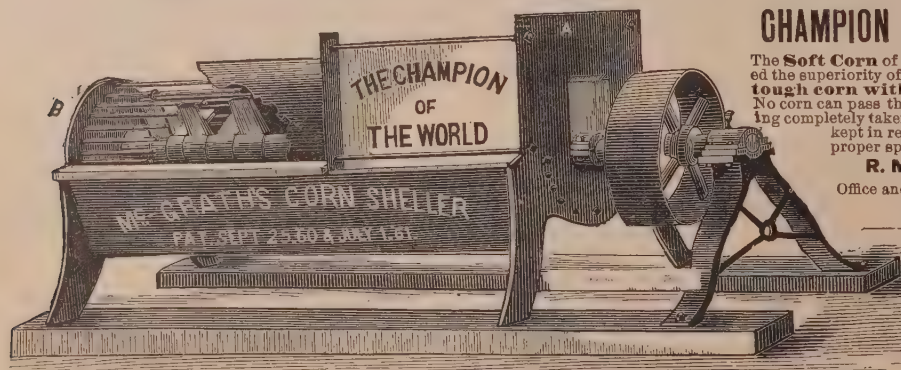
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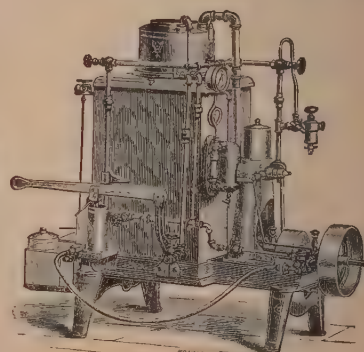
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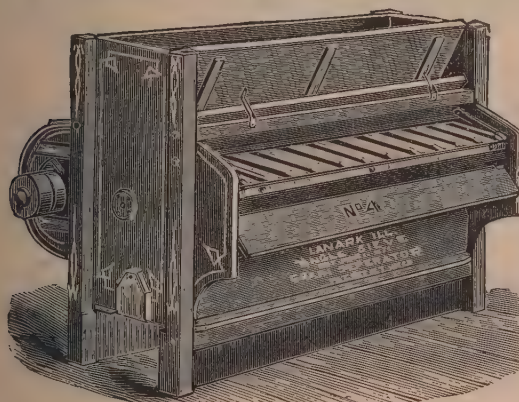
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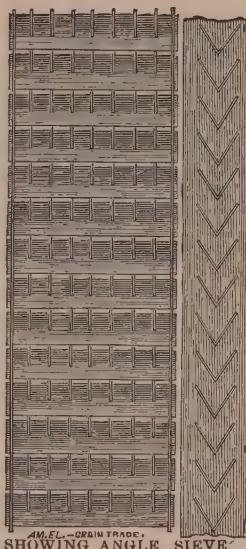


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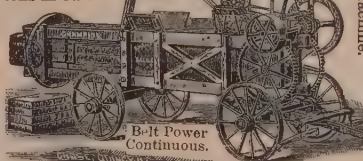
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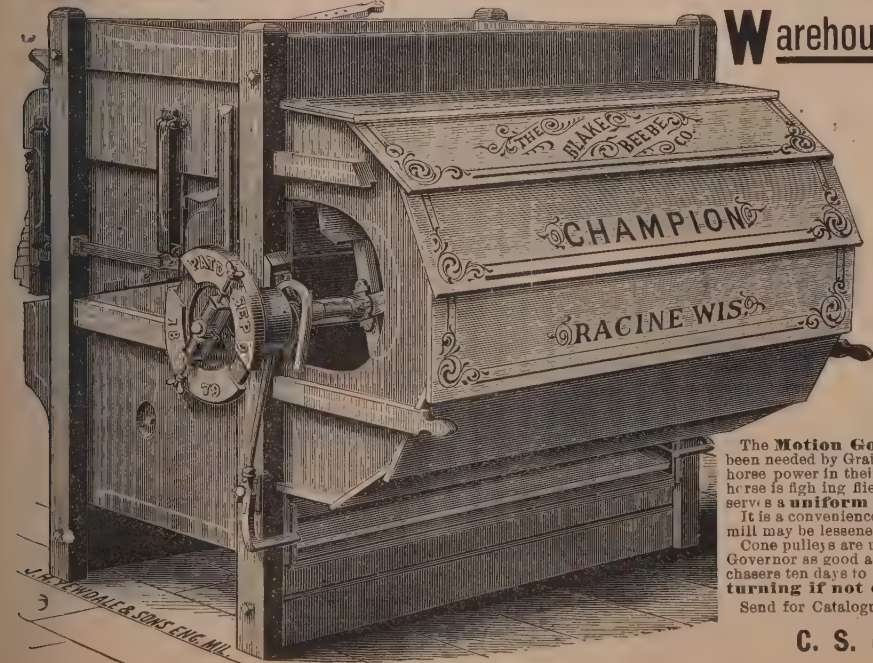
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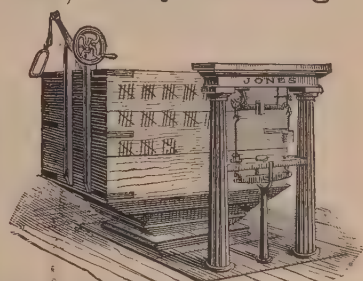
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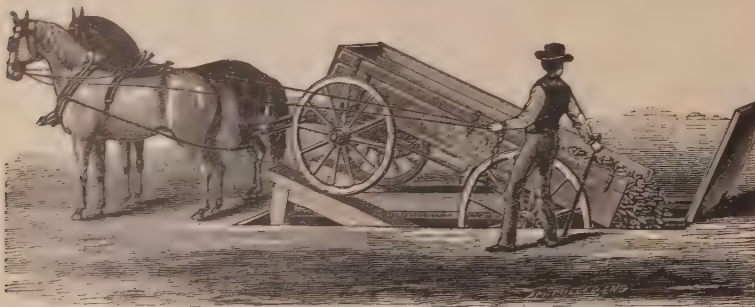


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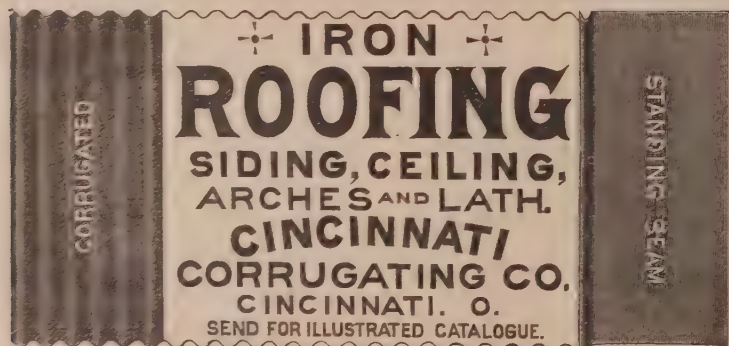


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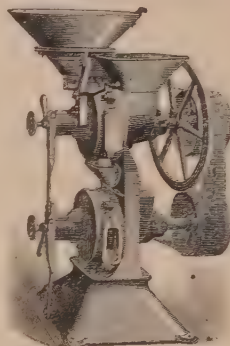
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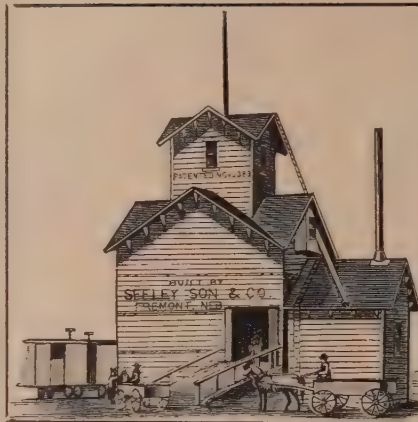
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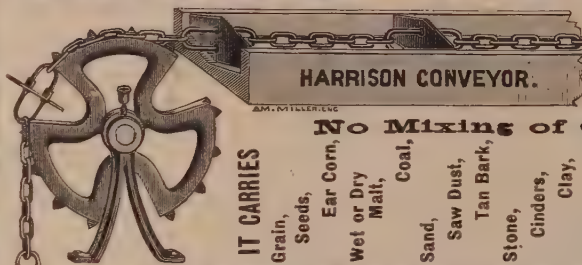
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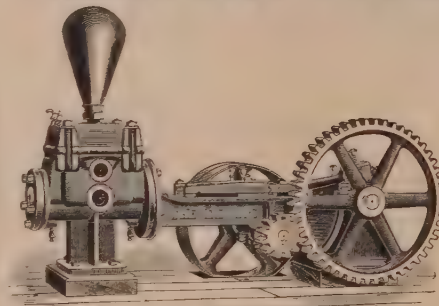
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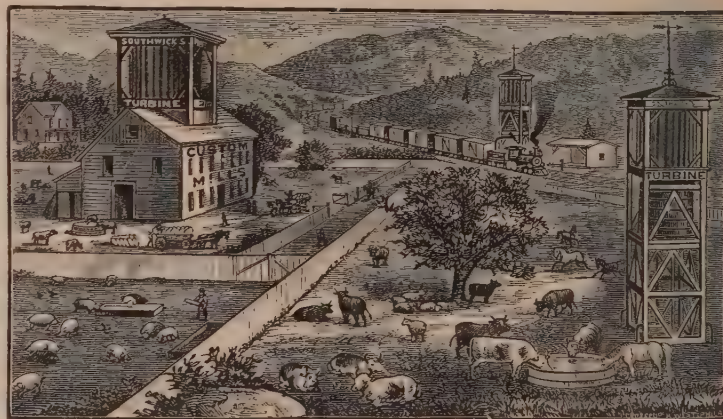
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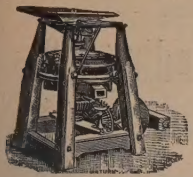


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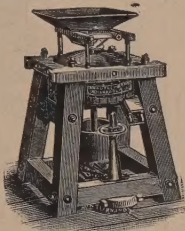
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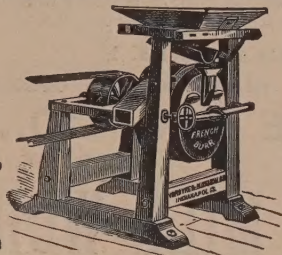
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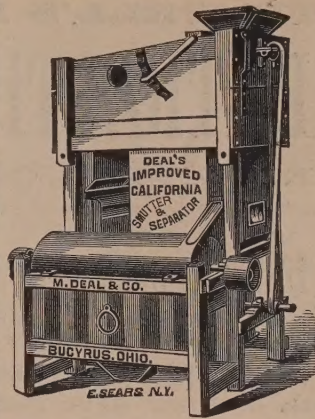
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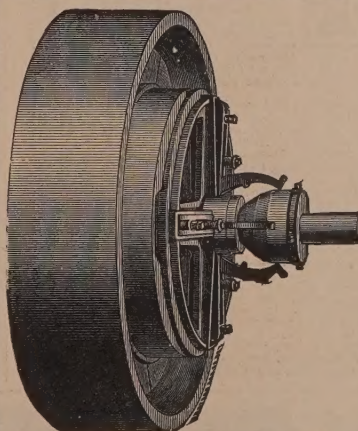
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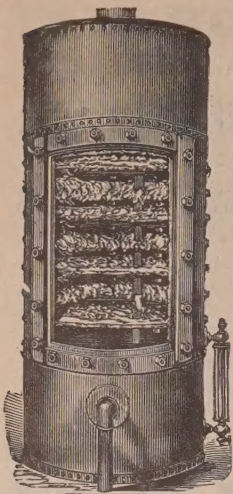
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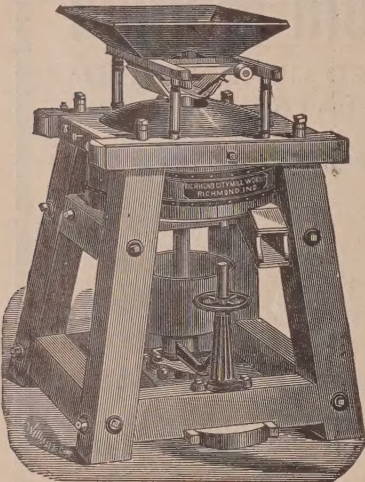
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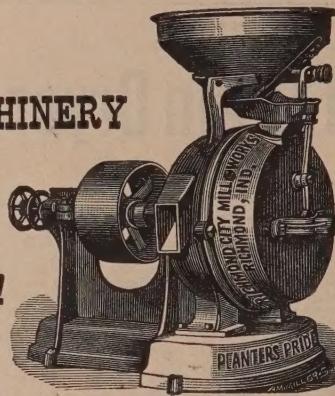
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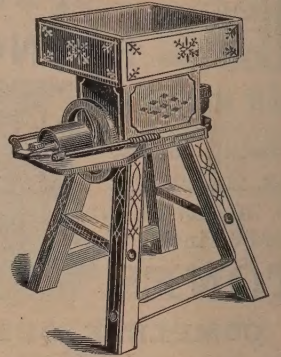
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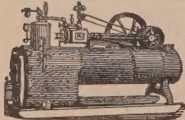
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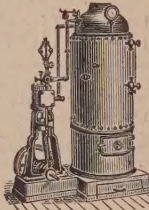
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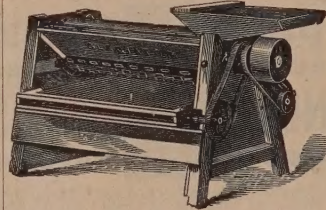
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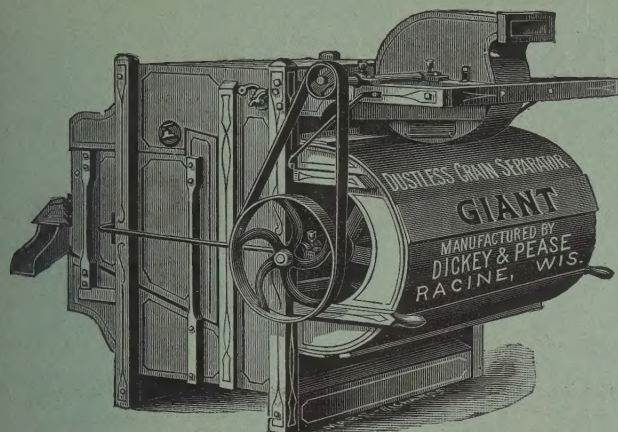


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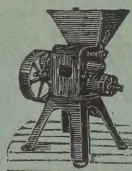
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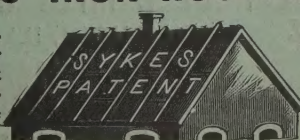
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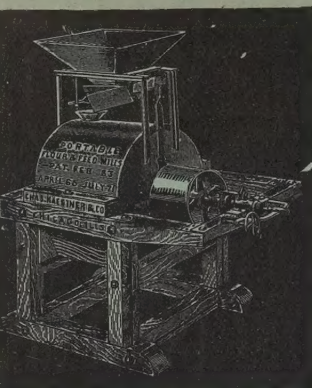
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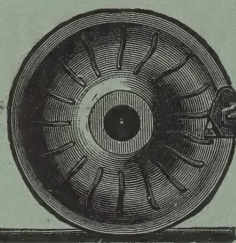
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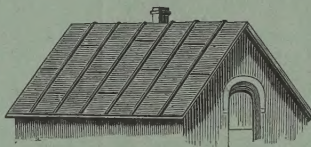
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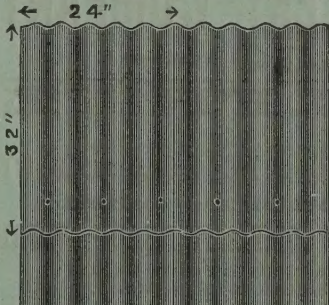
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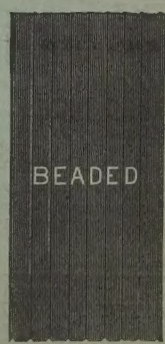
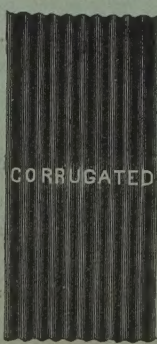


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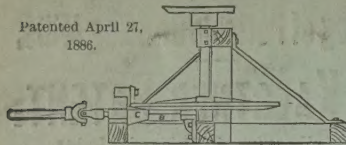
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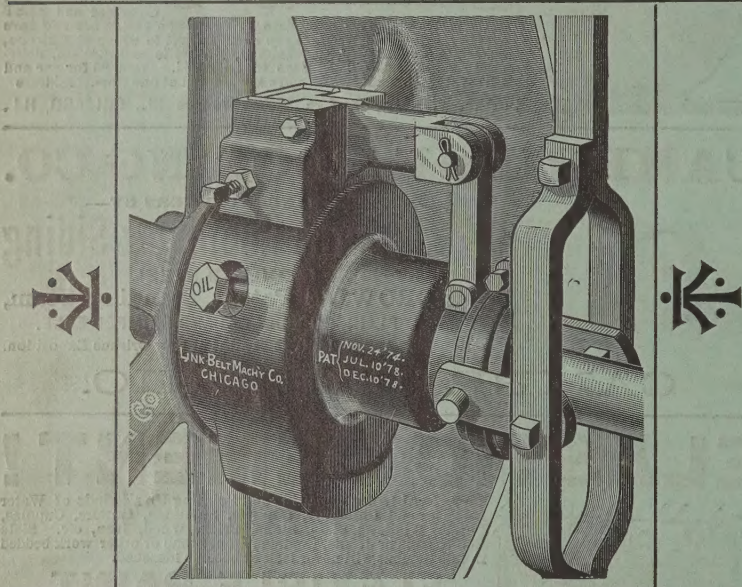
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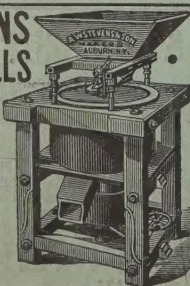
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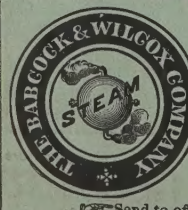
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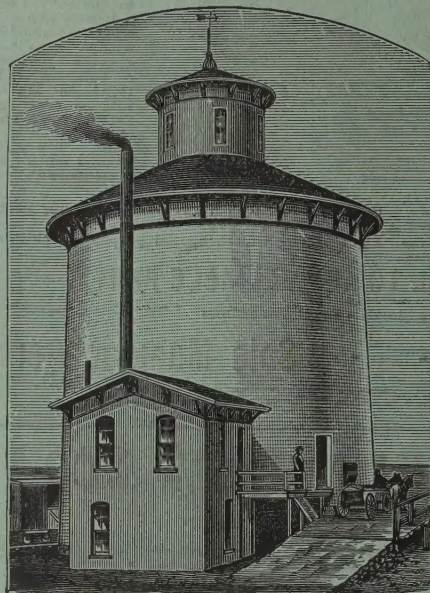
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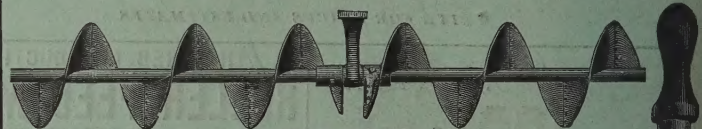
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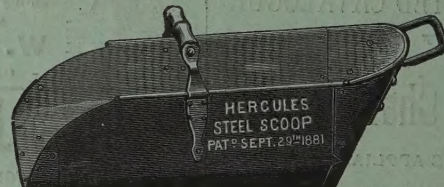
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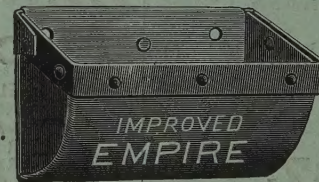
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